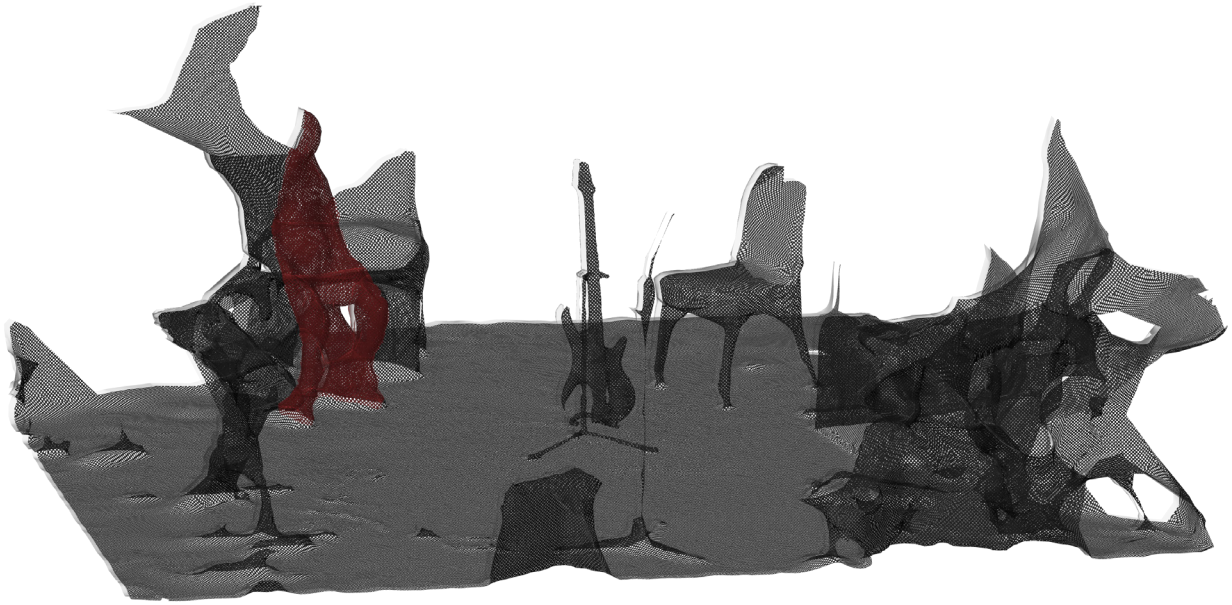


SOUMIL MAJHI

design portfolio

Hello! I'm Soumil. I'm a fourth year architecture major at Georgia Tech. I'm interested in making design accessible to all.

ITERATION
1 - HIDDEN ROOMS
2 - DYSFUNCTIONAL DRAWING
3 - MAPPINGS

PROJECTS
4 - DATA ESPLANADE
5 - ECOLOCATION
5 - SHOWCASE HIGH SCHOOL
6 - MECHANICAL ART
7 - CREATIVE CONNECTION

EXTRACTION
10 - COLLECTED ANALYSIS WORKS

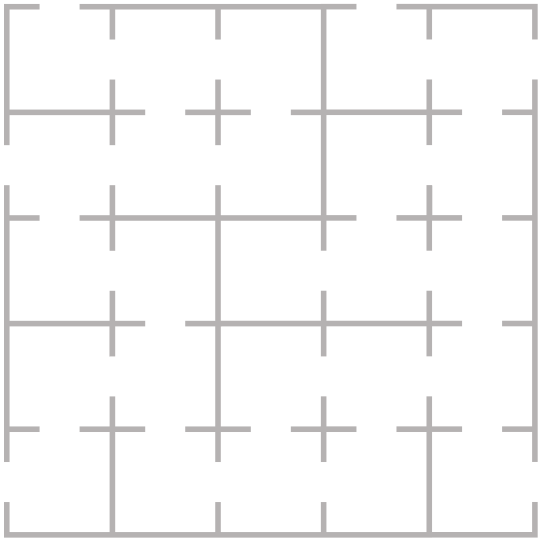
11 - ADDT'L WORKS

iteration

He would always be the one to join us, going on a quest to nowhere
Picking some random destination in the middle of the woods
All for a bag of peach rings
Or a sandwich
When he was hungry he insisted upon it

parents memorial

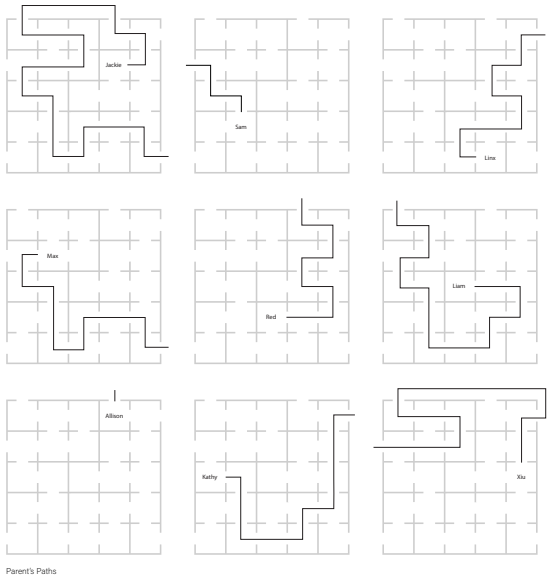
Death and Taxes



My friend Nick passed last May. His parents bought a brick for him at the church in Connecticut his memorial was at, at the parents memorial. I found solemnity and honesty in the gesture, but I felt myself wanting more from it. This represented none of the guy I knew, just a life cut short compared to the bricks around him who lived longer. This memorial acts as a method for me to look for more meaning. A community past the grave where parents can get to know the kids they love so dearly.

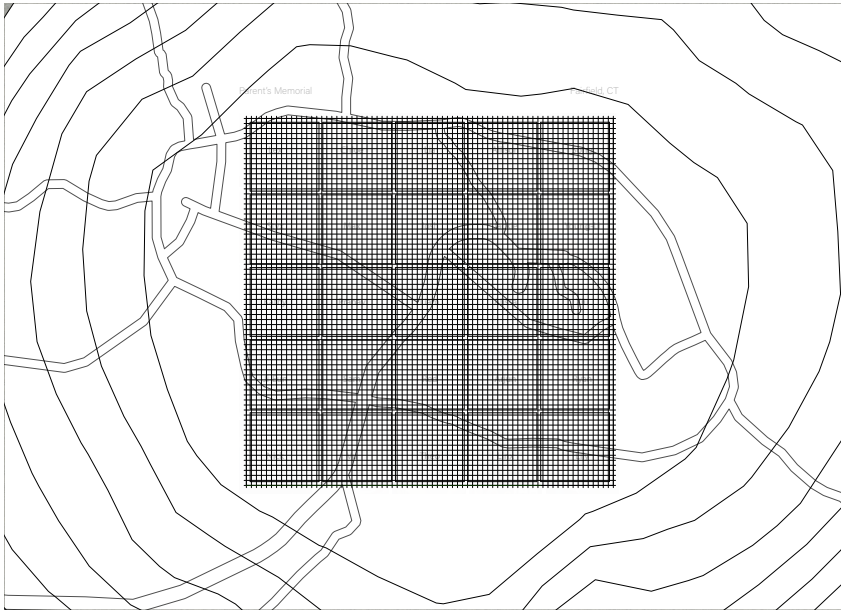
memorial and game

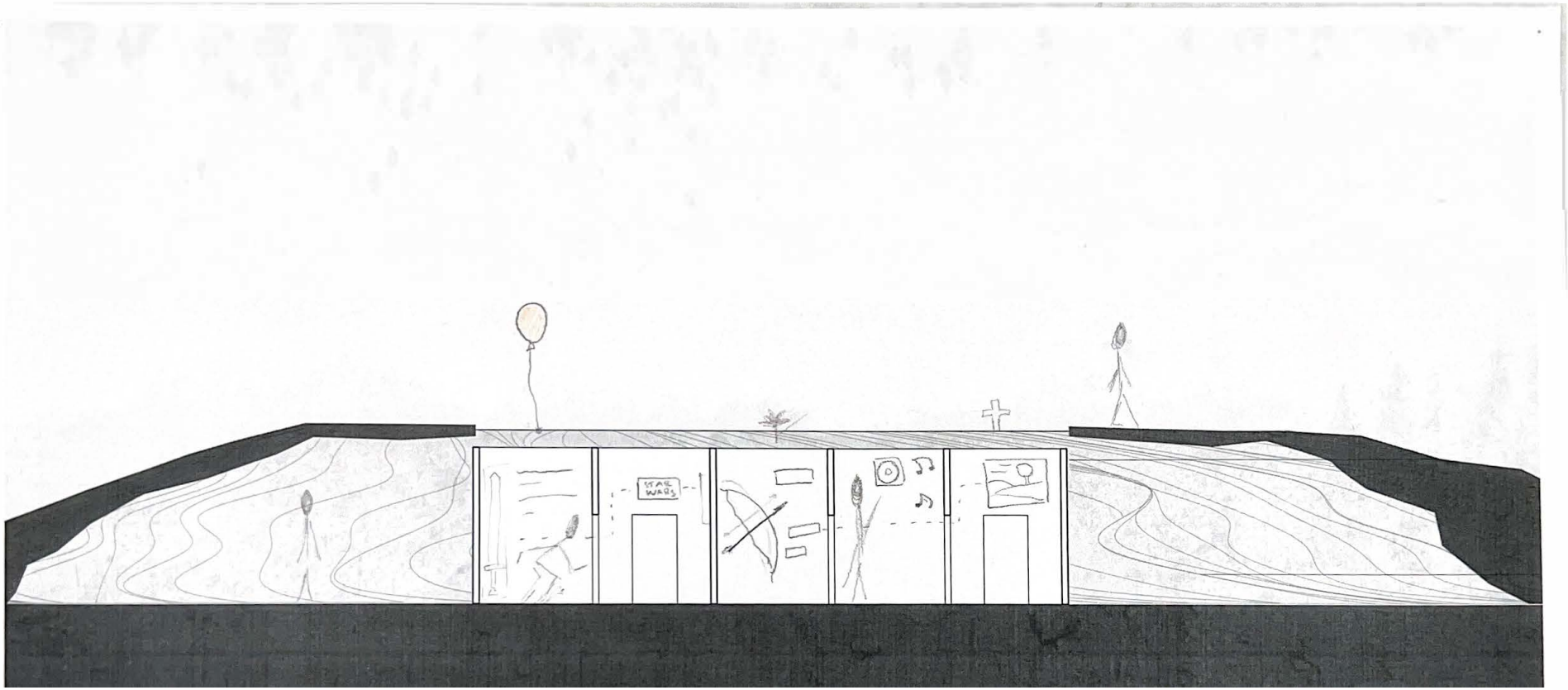
My interpretation of a parents memorial becomes an element of a game, building community past death. A matrix of rooms are situated within a burial mound, with each cell decorated with the interests and hobbies of a lost child. A parent is tasked to enter the memorial and navigate through each room, learning about other lost children and looking for elements of their child in another lost life. Each room is connected by interests, and by creating connections in the memories of their child and others they can find their loved one's memorial.



Parent's Paths

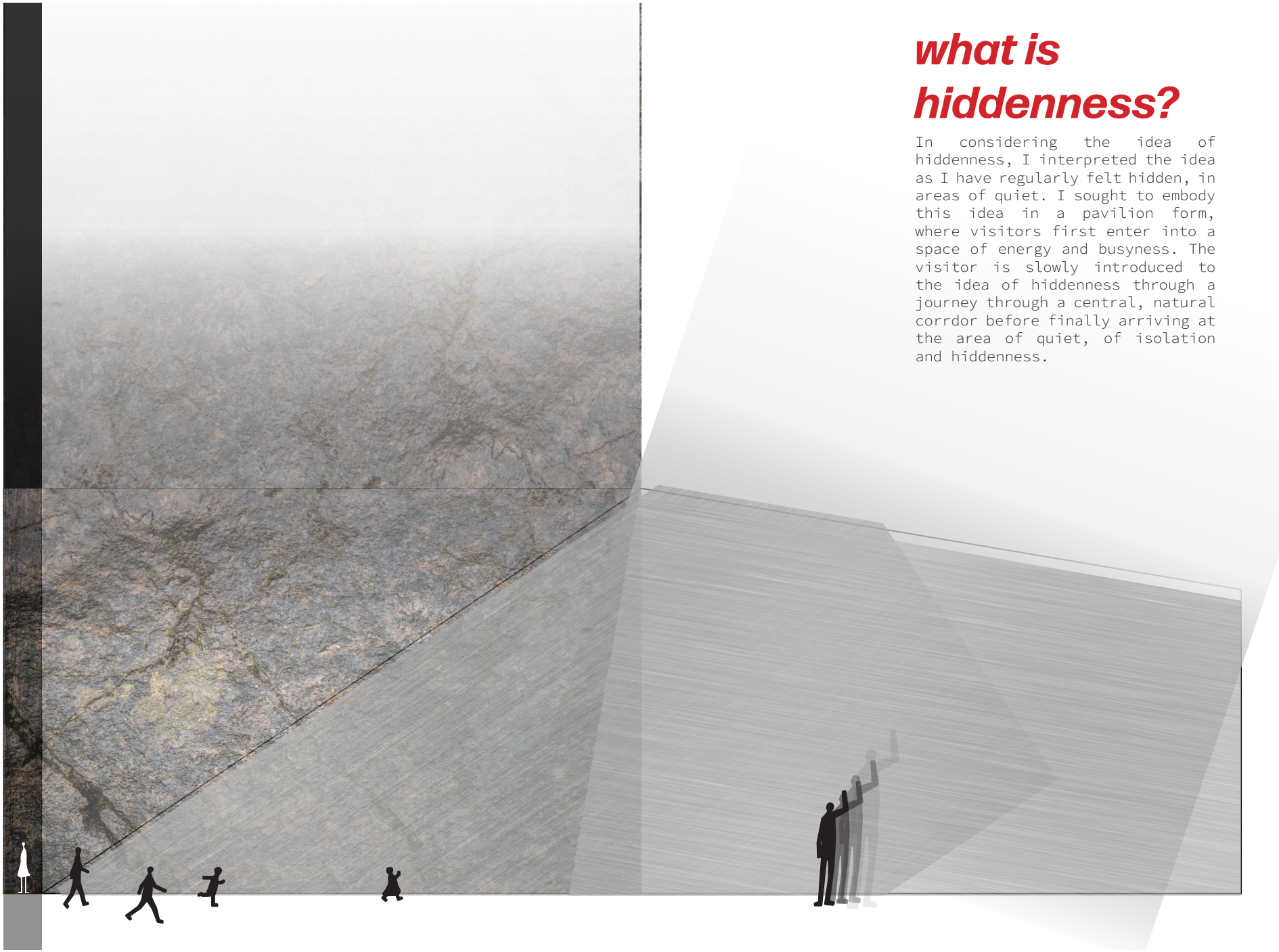
Beyond the matrix, the earthwork memorial is intended to evoke the burial practices of Native American mounds. The top of the mound is inhabitable, intended as a typical memorial experience without the exploration. The surface is grated, allowing for objects such as flowers and balloons to be placed above individual memorials.




WAR
WARS

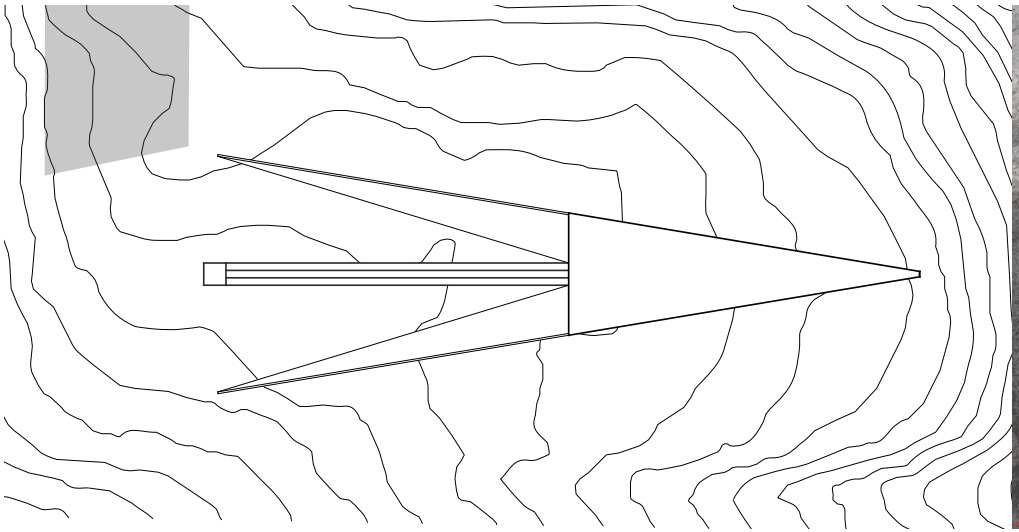
“hidden rooms”

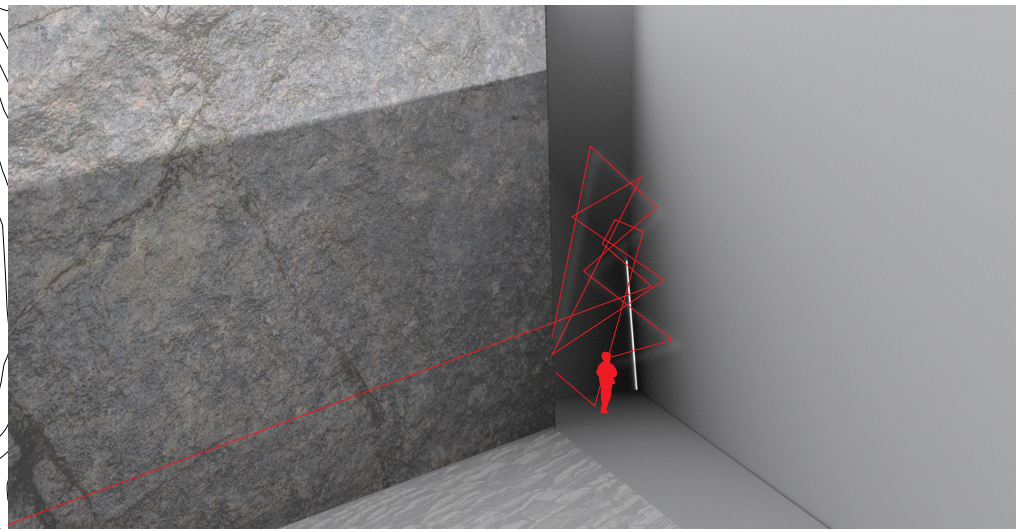
assignment 1 - Studio II



what is hiddenness?

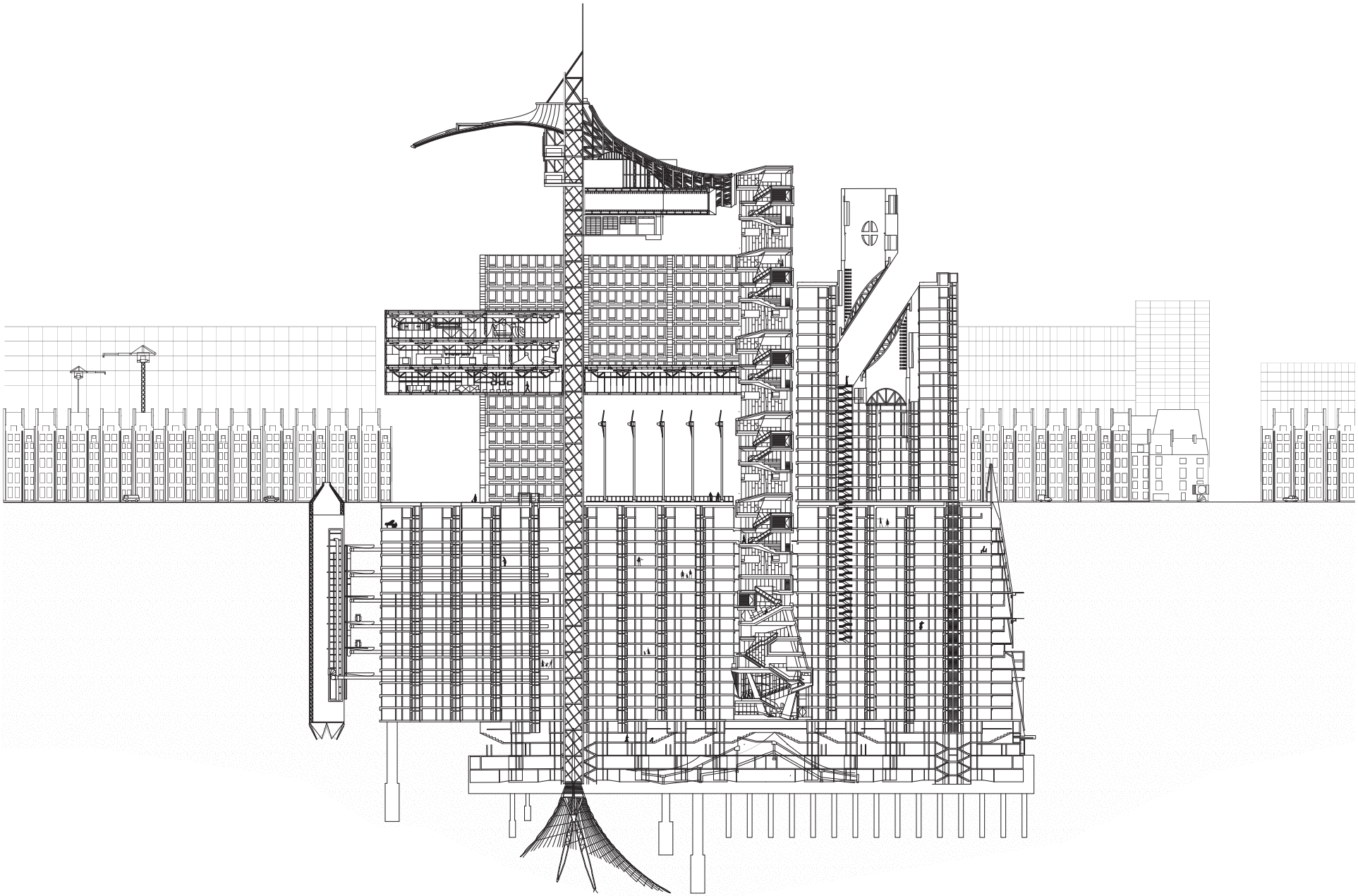
In considering the idea of hiddenness, I interpreted the idea as I have regularly felt hidden, in areas of quiet. I sought to embody this idea in a pavilion form, where visitors first enter into a space of energy and busyness. The visitor is slowly introduced to the idea of hiddenness through a journey through a central, natural corrdor before finally arriving at the area of quiet, of isolation and hiddenness.



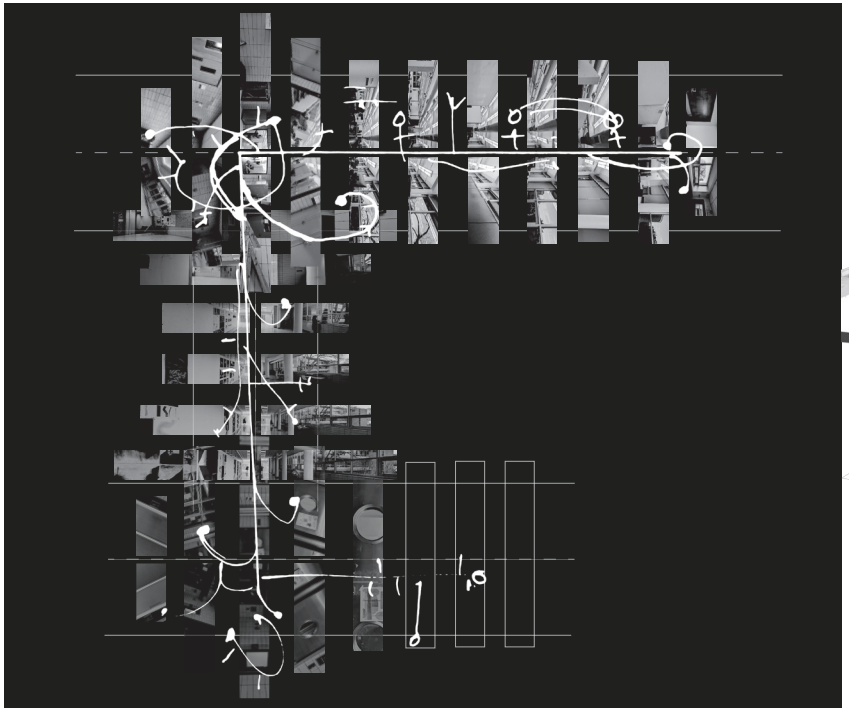


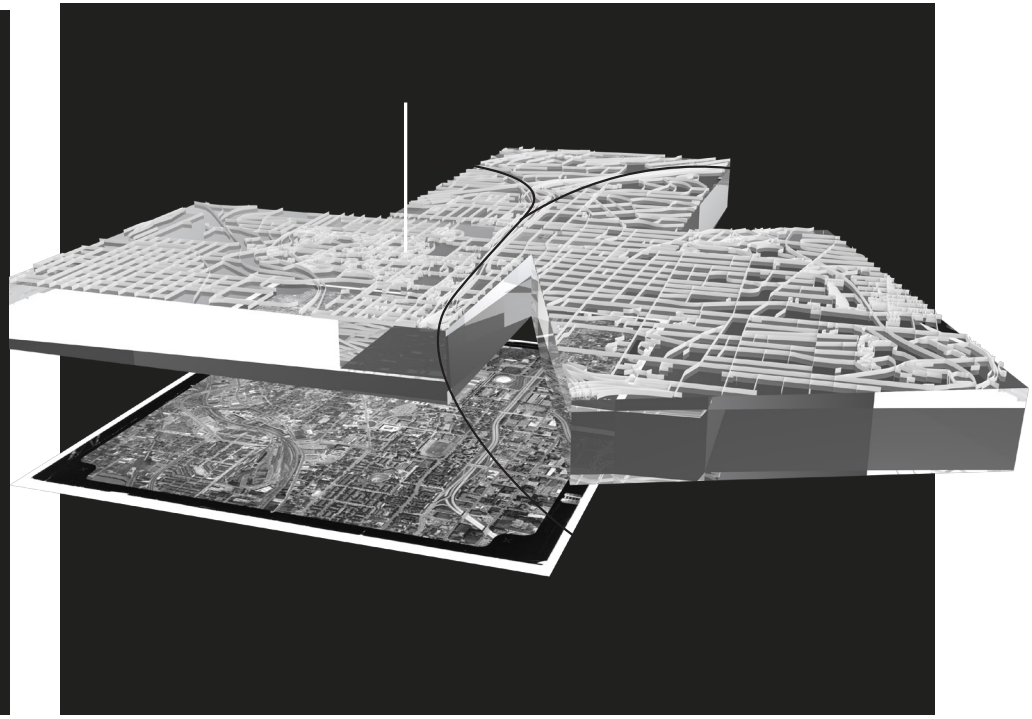
isolation

The structure contains three key zones of isolation. As visitors enter the form from the west, they enter a large hall full of other visitors. This area has the least isolation, with the community as a whole creating chaotic and strong energy within the space. As the visitor enters the narrow corridor in the central band of the building, close walls create a sense of singleness, with light only entering from far above them, as they walk in a central path towards their final destination. The final destination is the actual zone of total isolation, in sonic isolation and light based, where the energy of the space only exists within the person themself alone.



dysfunctional drawing: **aggregated living:** combined precedents create a dense underground society within a building that reaches for air

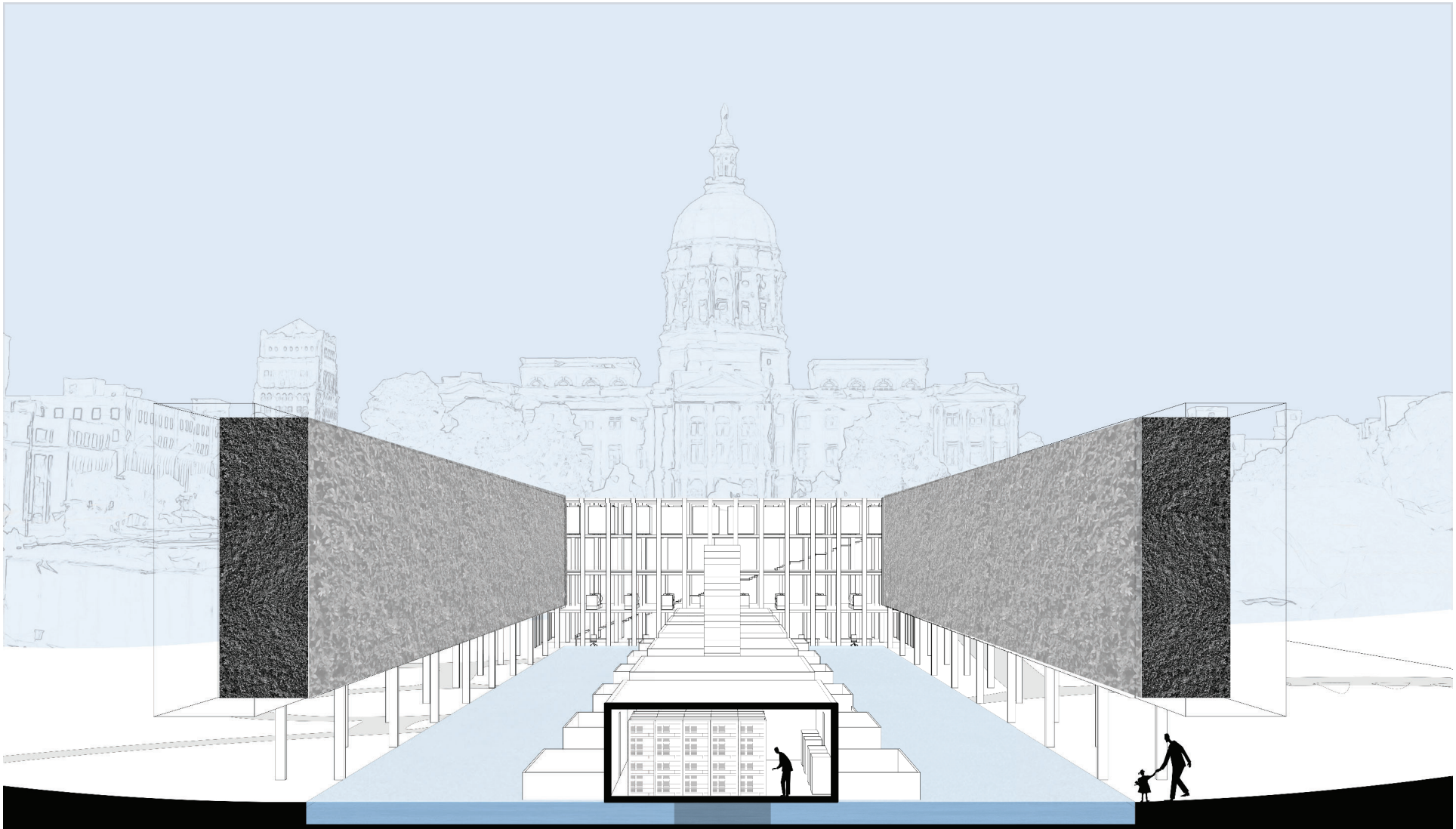




phenomenalogical mappings

The mappings explore Architecture East on the Georgia Tech campus through micro and macro scales. The first mapping, a movement mapping, takes inspiration from Jan Debbit's work with perspective pictures as a method of exploration of the space, as well as freedom in movement and perspective of the surrounding context through windows. This is overlayed with regulating geometry of the space, as well as possible movement systems through dance notation. The right mapping considers Architecture East within the formal and historical context of Atlanta overtime, comparing the modern context with relation to Midtown and the Downtown corridor compared to its context when first built.

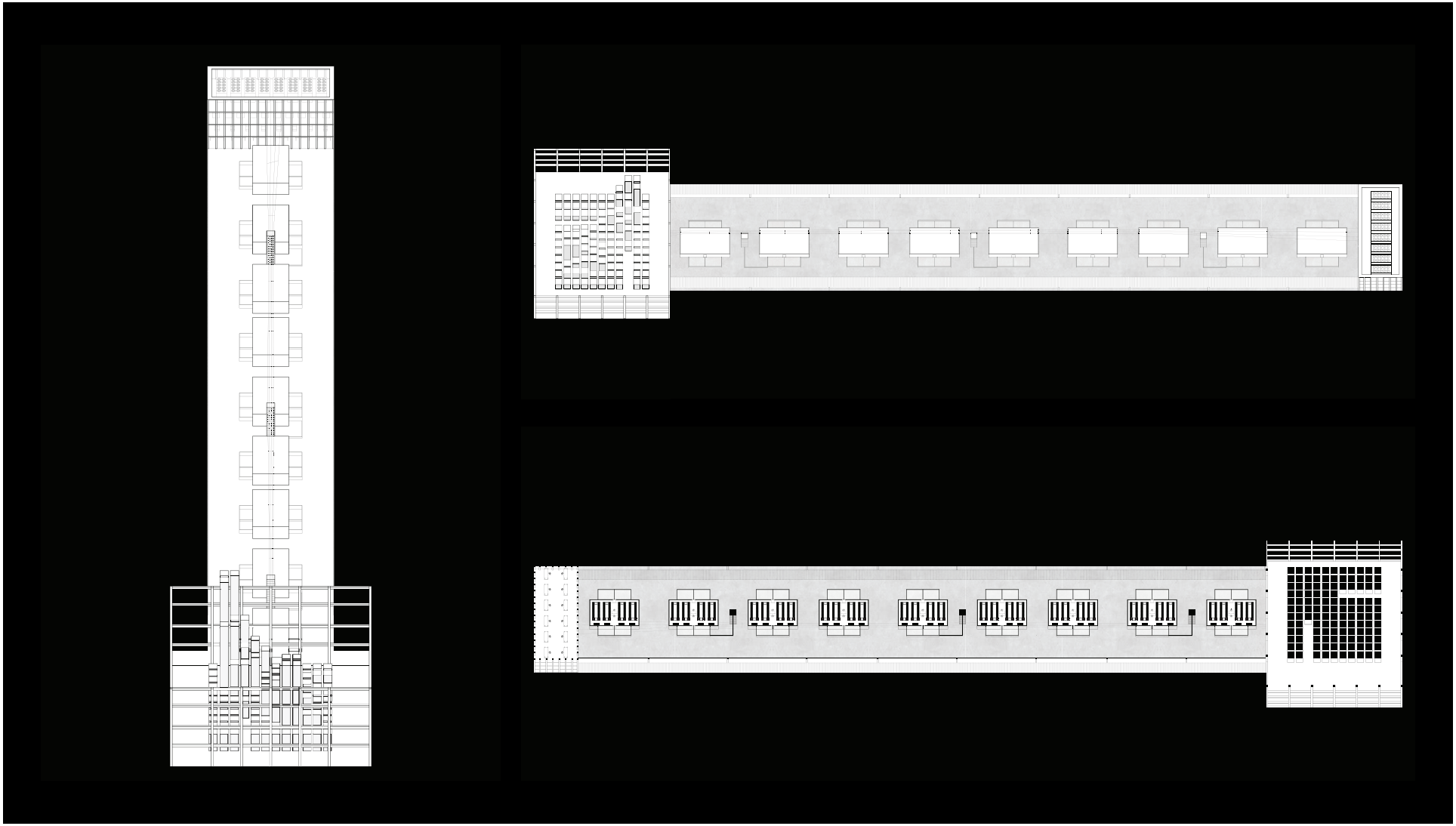
projects



DATA ESPLANADE AT MEMORIAL DRIVE

the future for Atlanta!

Death and Taxes

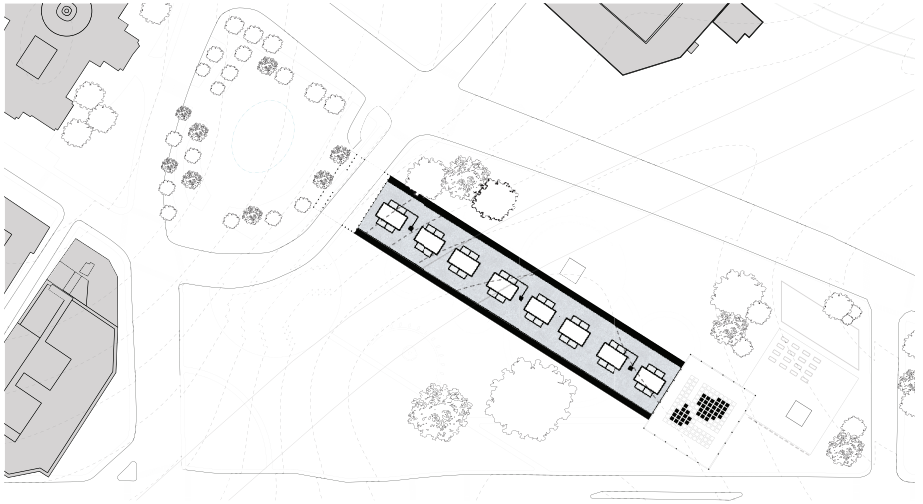


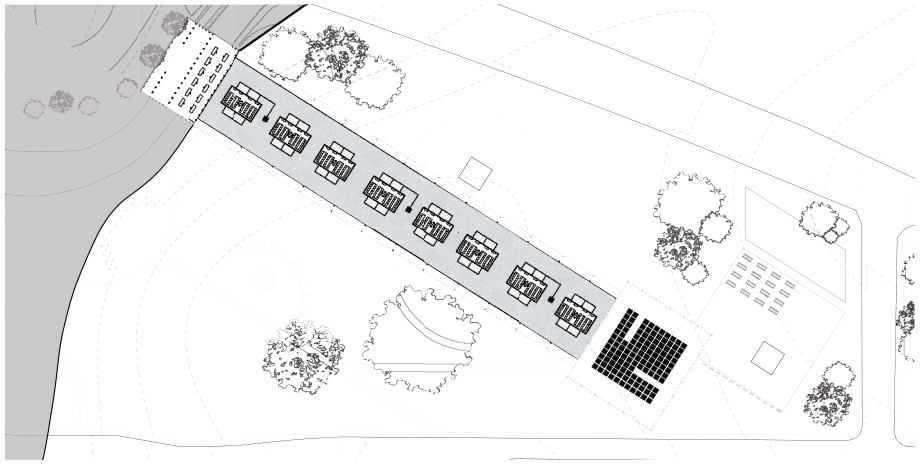
sited sanctuary

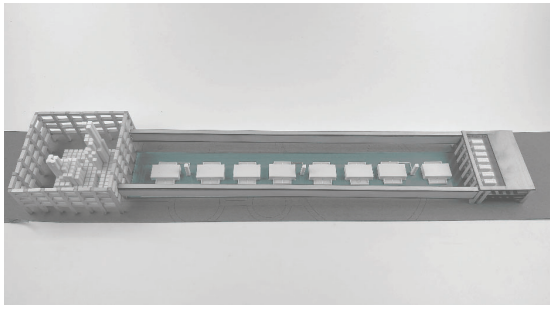
Data Esplanade tackles a joint program between civic and sacred, state and death. The structure aims to combine formal program: data center, and sacred program: a reflecting pool, to create a serene condition for visitors of Memorial Drive Greenway in Atlanta, while creating economic oppurtunities and gains for local businesses and the city. Data centers reside within this linear reflecting pool, flanked by topiary bushes providing shade and comfort, and towers exist as a structural yet functional piece, representing our growing need for data while serving as networking servers for the data centers. Data Esplanade exists as a critical project, while tackling how data centers can exist in an urban context.

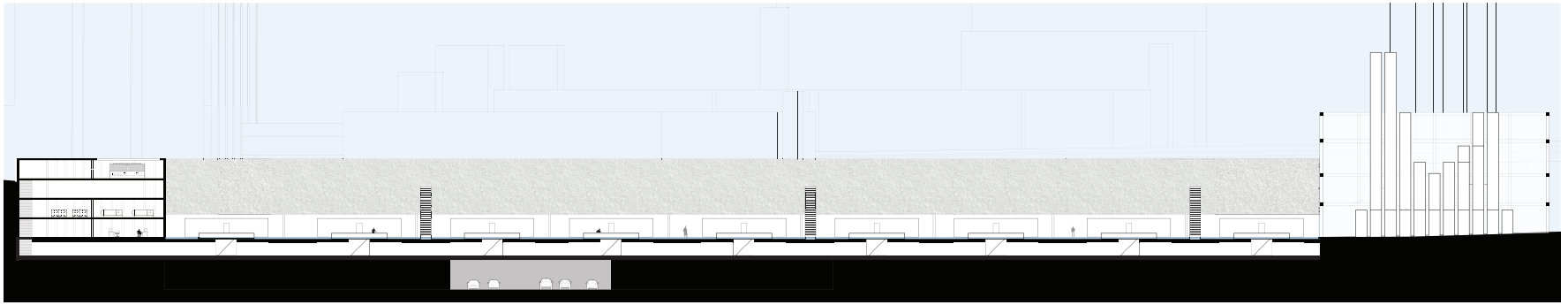
data esplanade

The esplanade employs a linear form, bookended by a vertically sprawling networking complex, supporting the data centers within the reflecting pool. Towards the state house, essential functions such as power and administration are inset into the landscape, bisected by a road through the third floor. The esplanade directly splits pedestrian walkways and recreational areas on the Greenway in a strict adherence towards the Georgia state house.









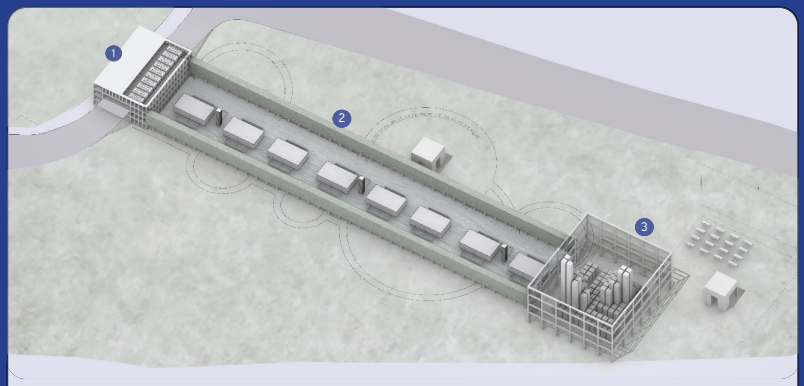
In Georgia, data centers have provided:

$25 Billion
to Georgia's Economy

$1.8 Billion
in tax revenue

175,000 Jobs
provided by Data Centers

*Data Esplanade can bring **$175 Million** in tax revenue to Atlanta*



1. Core functions, chillers, and cooling take place inset into the land, bisected by the road, away from visitors to the site.
2. Topiary lines a reflecting pool surrounding the individual data centers, creating a pondside condition visitors can arrive to and take shade beside.
3. Network serves servicing the data center units form a public sculpture, a monument to data rising far above human scale.

Interconnected 5 MW Data Centers

Data Esplanade is unique for focusing on AI interfacing, aka *answering prompts.* Currently, massive rural data centers create delays up to 10 ms to answer a prompt. These centers have been historically created for to train LLM models, and lack the capability to support interfacing, which will exceed 55% of AI data requests by next year. Data Esplanade proposes a collection of small, 5 MW data centers individually and federally owned, creating an integrated powerful system.

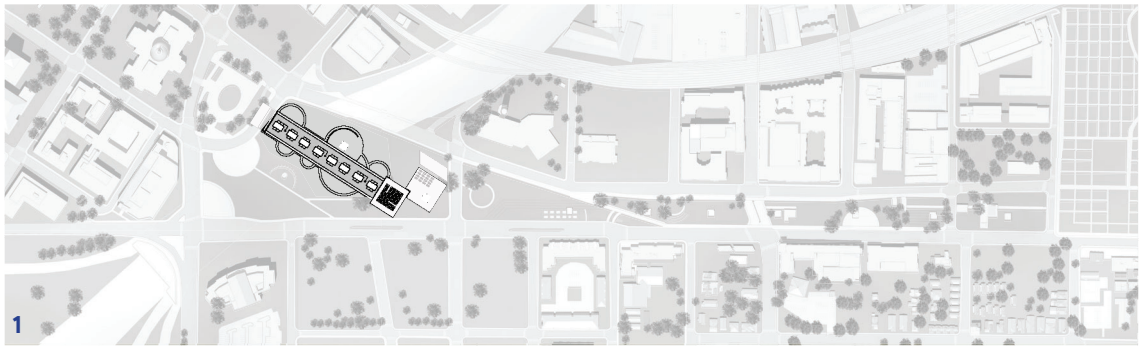
This proposal creates immediate adjacency to the companies that need fast, centralized prompting, allowing for prompting with a lag of *less than a millisecond.*

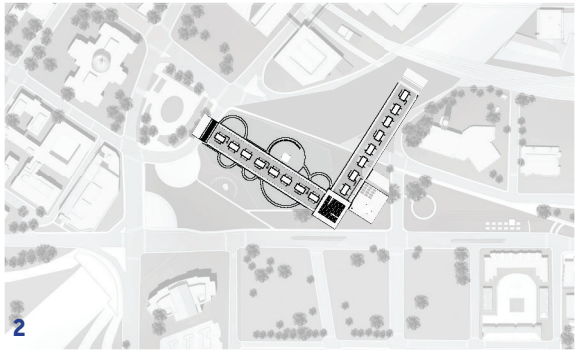
Beautiful Public Experience

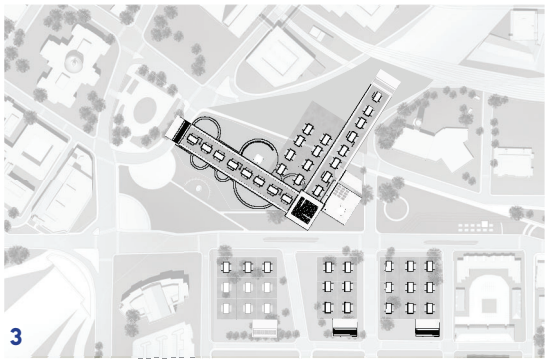
Data Esplanade doubles as a serene corridor, evoking a reflecting pool or a relaxing topiary pathway in France. By operating as a collection of small centers, the buildings are of little disturbance to a beautiful public esplanade where families and friends can picnic beside the water in shade. The rippling lake around the buildings counter and eliminate the heat island effect of the centers, creating a nice location for people to gather and birds to inhabit.

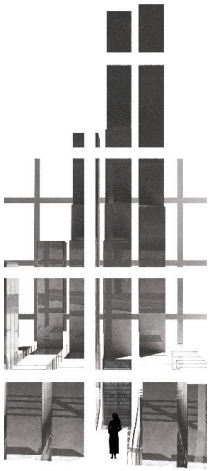
Data Esplanade represents the perfect connection between economic opportunities that the companies nearby Memorial Drive need, while creating a pleasant, contemplative space for the citizens of Atlanta!

Data Esplanade is intended to expand through three phases, the first being highlighted in this project. Phase 2 expands the project to establish a highway cap and grounds for further expansion, and Phase 3 fully realizes the goal of clustered data center computing, utilizing capped and local land.







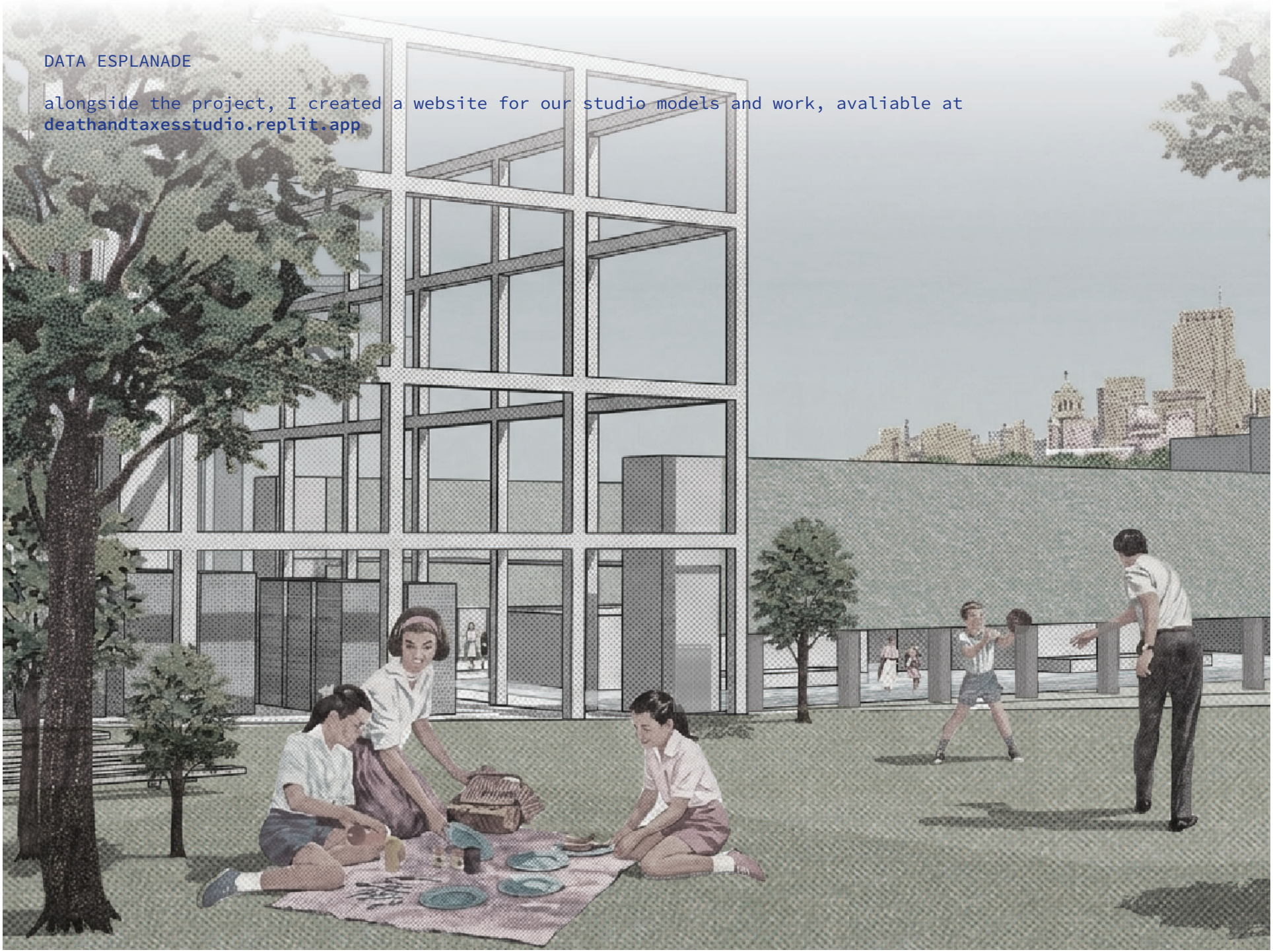


Network Servers

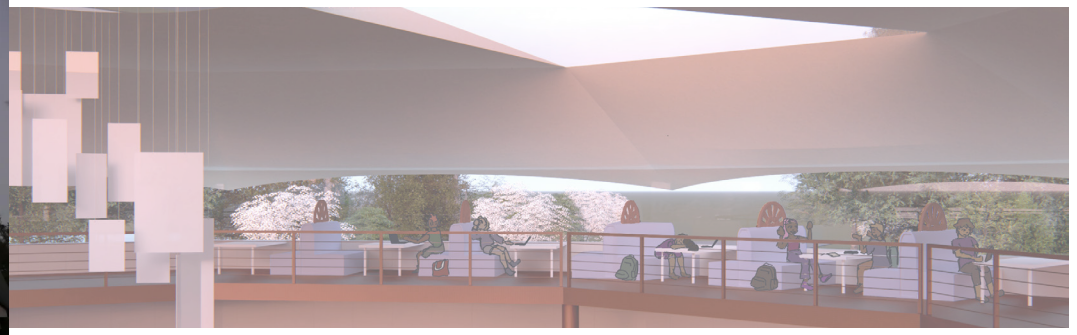
Data Center

DATA ESPLANADE

alongside the project, I created a website for our studio models and work, avaliable at **deathandtaxesstudio.replit.app**



EcoLocation
AT UF | UNIVERSITY of FLORIDA
Walt Disney Imaginations Competition
Quarter Finalist



getting to know the bats

Welcome to EcoLocation: a twilight bat-flight amphitheater, ecological engagement center, and nocturnal study hub nestled beside the mossy beauty of Lake Alice on the University of Florida campus. Every night, hundreds of thousands of bats at the UF bat houses take flight to feed at night, with many coming to view the spectacle, however, the only place to view the bat flight is a nearby wooden fence. EcoLocation seeks to address this placelessness and create a new hub for UF students.

I worked with my team of UF and Georgia Tech students of various disciplines to tackle Disney Imagineering's prompt of creating a place of respite on campus, addressing student, faculty, and visitor needs. We found the issue of a lack of a viewing area for the tradition of bat flights on campus, and sought to create a viewing area and extended experientially designed space. As the only architect on the team, I led architectural and site design and rendering, while working with the team in developing interactives and associated graphics.

UNIVERSITY OF FLORIDA

interactives in the center, designed by my group members

area of respite

EcoLocation is a guided experience leading up to the main event, the bat flight. Guests enter from the parking lot or a nearby bus stop into the main atrium, the bat education center. Interactive learning experiences guide visitors through bat anatomy and our interactions with bats. Windows into adjacent UF labs create an inspiring experience for visitors to view cutting edge research. Going upstairs leads to a nocturnal study hub for students, allowing for quiet work in a dim environment with views to Lake Alice, or a place of rest and relaxation. Once dusk arives, visitors are invited to the amphitheater to watch the spectacle as the bats fly into the sunset.

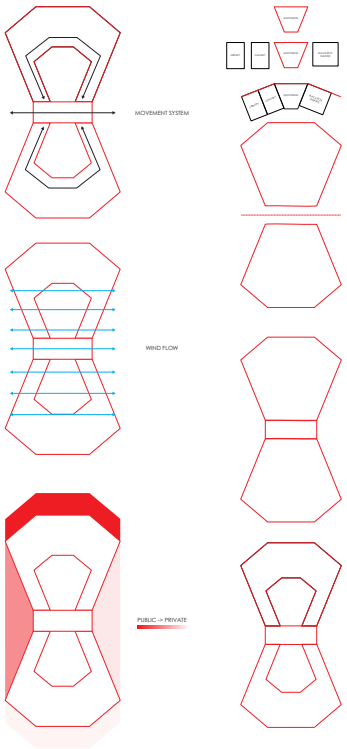
LET IT BE KNOWN THAT A
UNIVERSITY OF FLORIDA BAT HAS
BEEN ACCORDINGLY NAMED
Marmalade
Come with me to see the bats at
EcoLocation

The project was conceived by the Georgia Tech and University of Florida team and created for the 2025 Walt Disney Imagineering's Imaginations Design Competition. This project is the sole property of Walt Disney Imagineering and all rights to use these ideas are exclusive to Walt Disney Imagineering. The competition is a way for students and recent graduates to showcase their talents and for Walt Disney Imagineering to identify new talent.

SHOWCASE

HIGH SCHOOL FOR THE ARTS

assignment 4 - Studio II

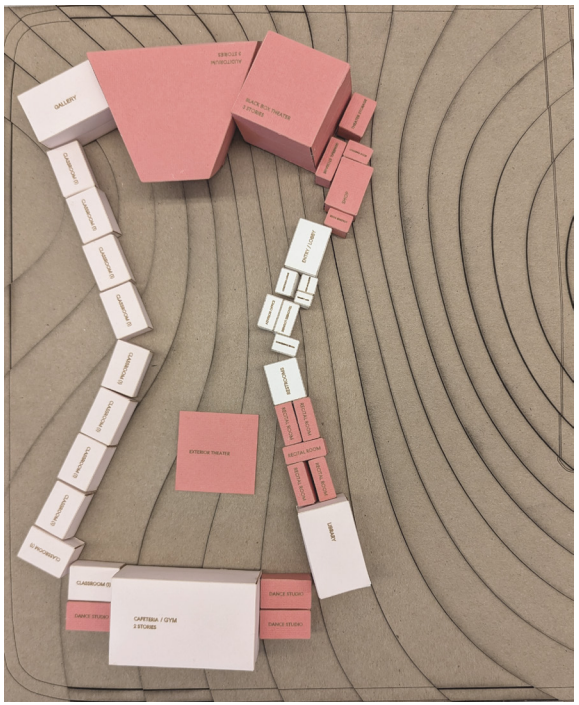


auditorium as form

The building begins by considering the auditorium as a place of community and celebration, allowing for the showcase of student work as well as becoming a multi functional space for all facets of performance art in the school and the community. Combined with additional support showcase spaces, the black box theatre and the gallery/library, the public facing sector of the building becomes a monumental wrapped corner, mimicing historic theaters, celebrating the gradeour of presentation.

The wrapped corner alongside the central form of the auditorium creates a guiding keystone form, which mirrored creates four distinct aspects of program from public to private, as well as a central cutting dogtrot allowing for movement throughout the entire building. Finally, central courtyards mimic the greater form of the building, create safe spaces for students separated from the buildings urban context.

ATLANTA GA


GALLERY
BLACK BOX THEATER
3 STORIES
CLASSROOM 01
CLASSROOM 02
CLASSROOM 03
CLASSROOM 04
CLASSROOM 05
CLASSROOM 06
CLASSROOM 07
CLASSROOM 08
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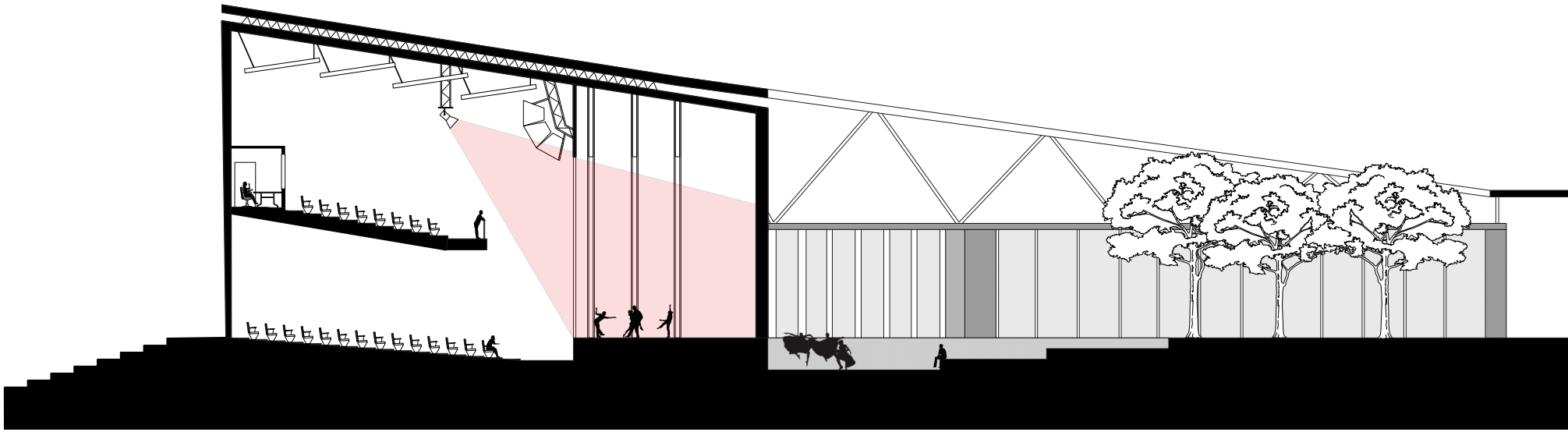
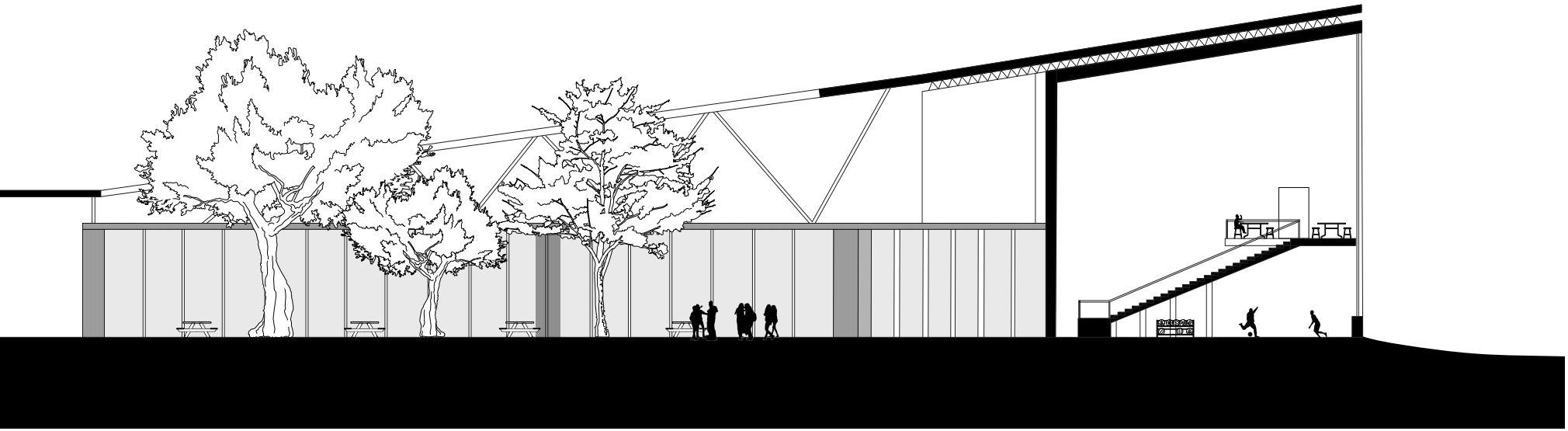
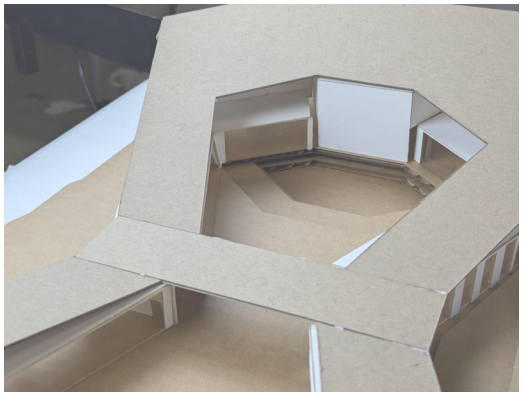


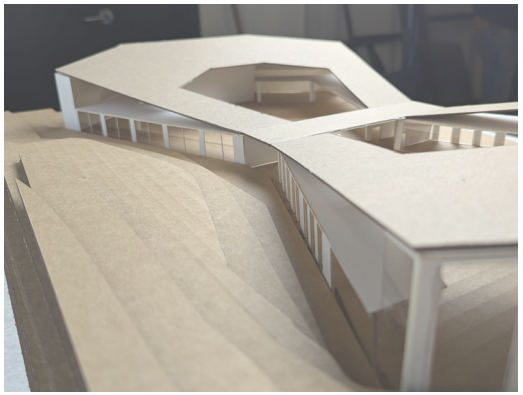
theatre of experience

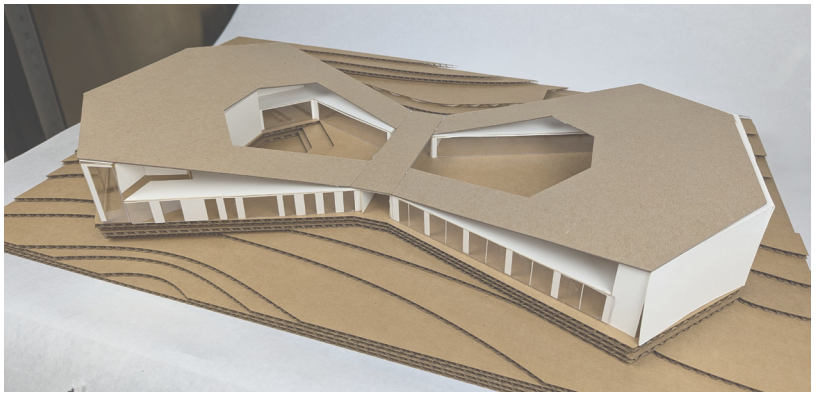
The pitched roof of the auditorium is used as a precedent for a thin, slanted roof over the entire building, emphasizing the dogtrot and inset corners of the form to function at a human scale as entrances, while creating open clarestories alongside the courtyards.

The main structure of the building consists of brick, with the roof being constructed of concrete and solar panels facing the south, with the main truss system holding the roof being made out of painted steel.







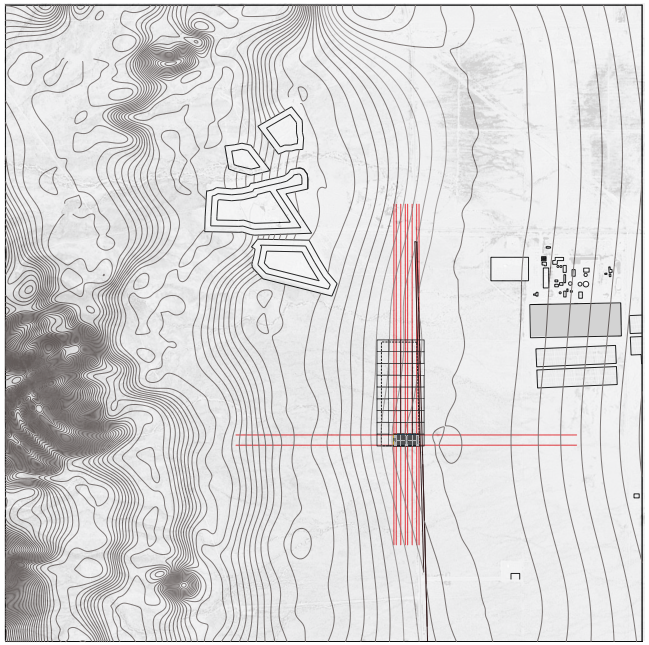


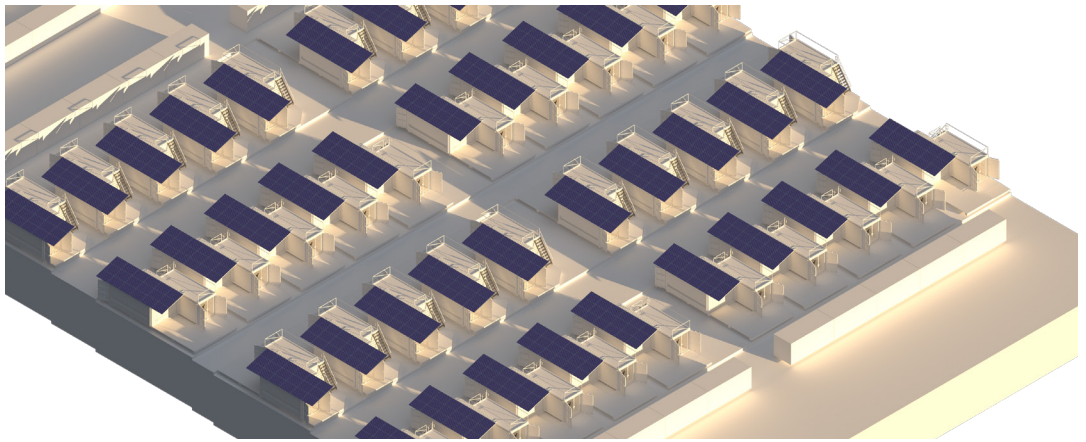
model and inhabitance

RAV4
LIMITED
AWD

architecture as “mechanical art”

probe 2 - Foundation Studio I



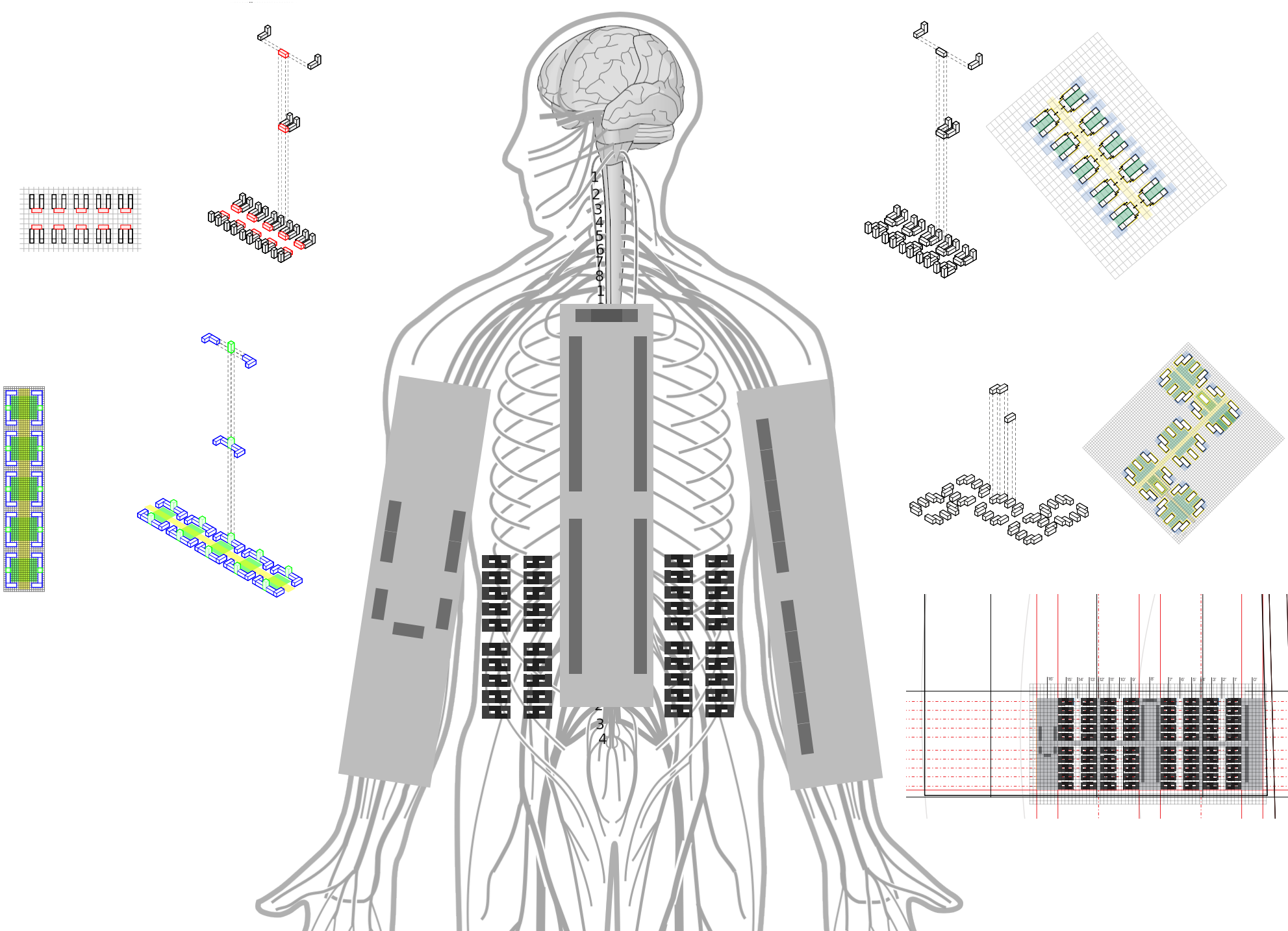


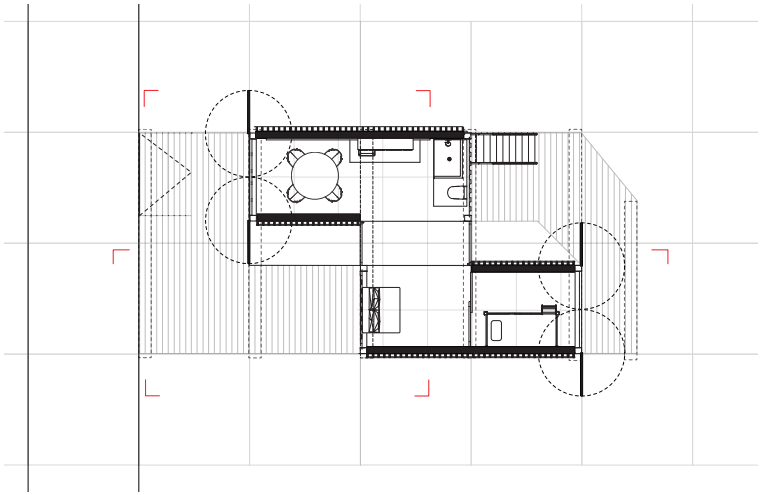
proposed refugee settlement

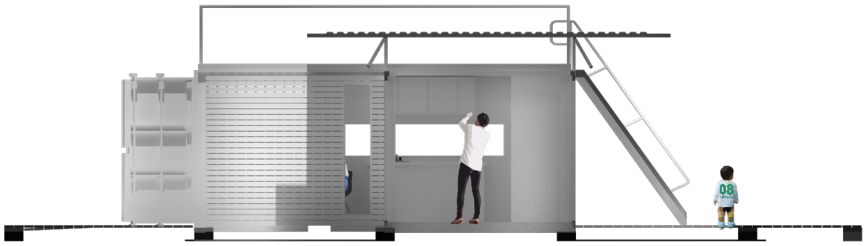
Considering a site bordering the Franklin Mountains within the El Paso desert, the refugee settlement project utilizes the simple form of shipping containers as a method of home, community, and comfort through orientation. Beginning with the creation of a program information matrix, we researched client needs/wants, characteristics of the site/area, and environmental factors affecting this community. This led into iterative parti design of aggregations of communities through the concepts of paseo and temple, before leading into individual community and housing unit design.

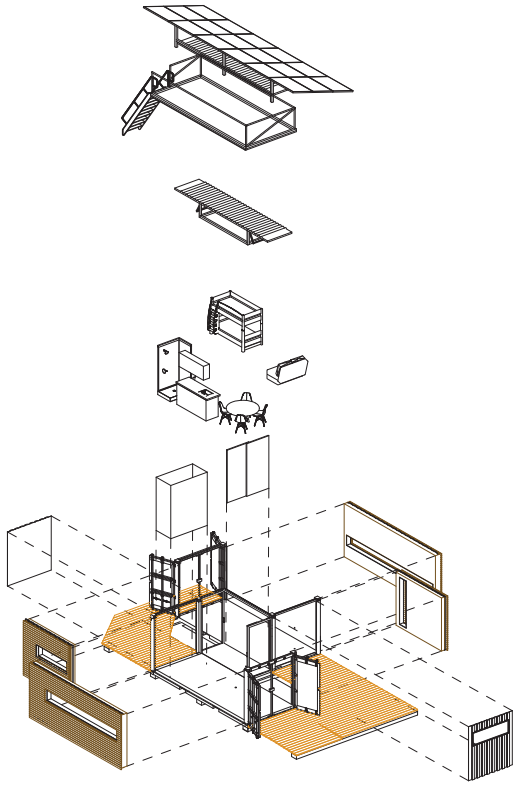
EL PASO, TEXAS

community partis







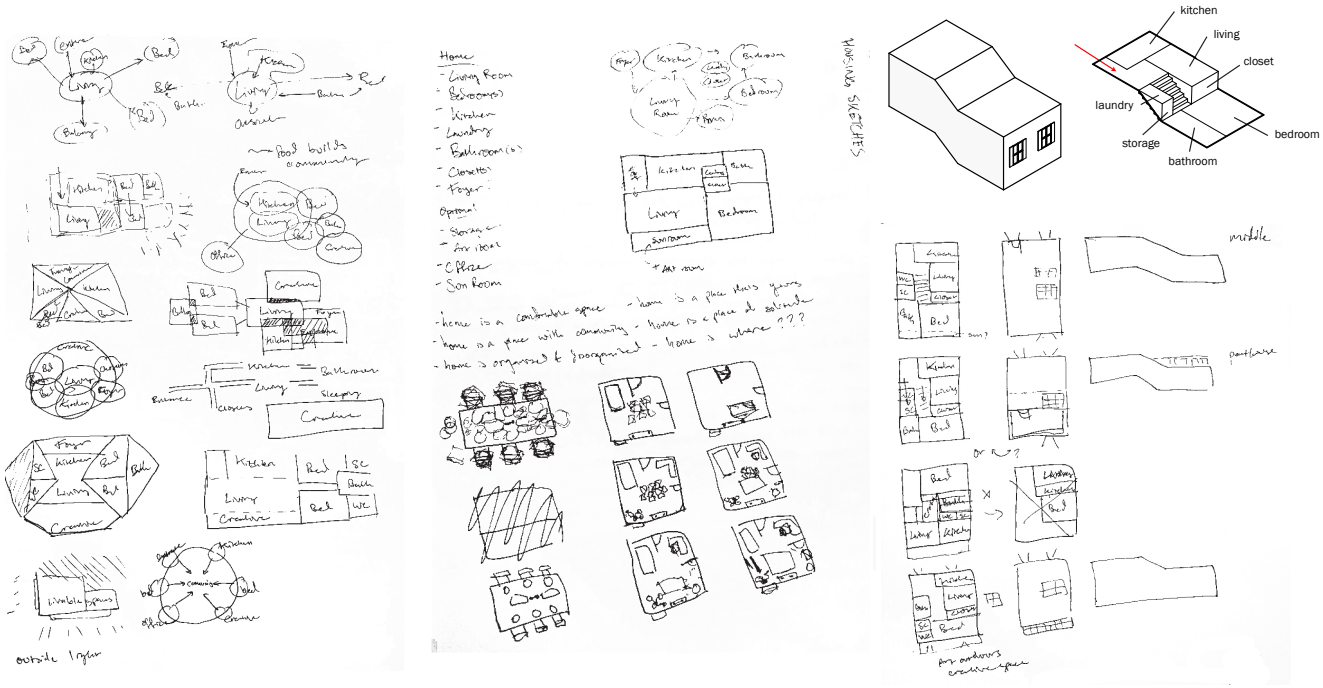


container housing

Each housing unit utilizes two adjacent shipping containers, connected through a central dogtrot, with a surrounding balcony. The roof is utilized as an accessible condition, as well as for a solar panel oriented south for all units. Public and private space is defined through methods of entry and adjacency to the street, with the community space of kitchen and dining open to the street, while living and sleeping is accessible only through private entry. The entire form is incased with a lightweight rainscreen, allowing for optimal usage of resources within the challenging condition of the desert.

creative
connection

Bolton Prize Studio



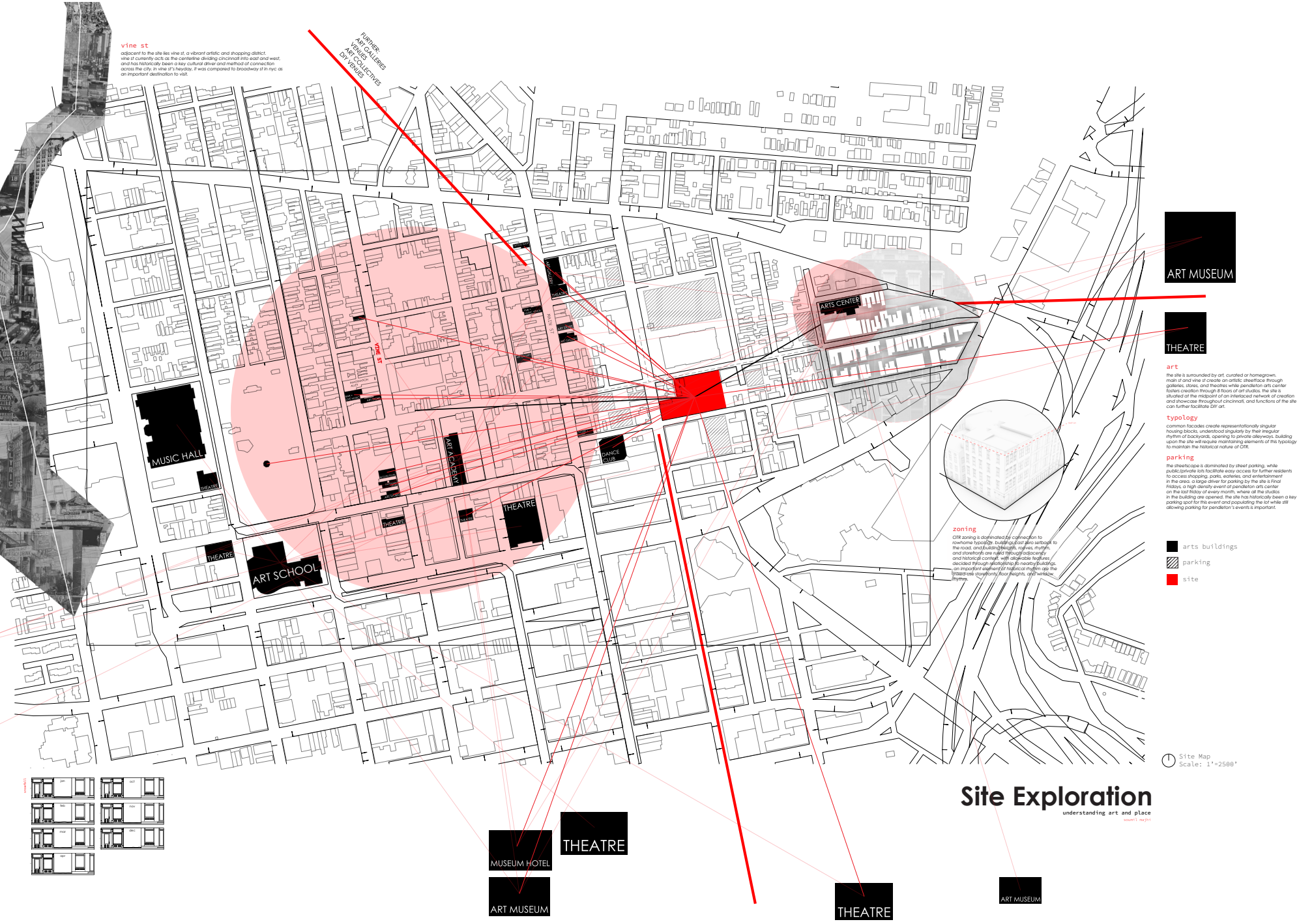
home as creation

Located within the Over The Rhine region of Cincinnati, the multi-family housing project takes a large note of the artistic context surrounding the site, and the utilization of art as a method for creation of the feeling of home. The project exists as a canvas for residents to make it their own, as well as a connector between key sites of creation and presentation. Main and Vine St, to the west of the site, contain a plethora of shops, music halls, and theatres supporting independent art in the area, and have historically been a lively district that is currently being revitalized. To the east of the site, Pendleton Arts Center houses 8 floors of artist studios, and on the last Friday of every month, invites all of the neighborhood and further city in to celebrate artistic creation. This project seeks to inspire and facilitate creation, while creating a pedestrian, lively neighborhood for display and sale.

CINCINNATI, OHIO

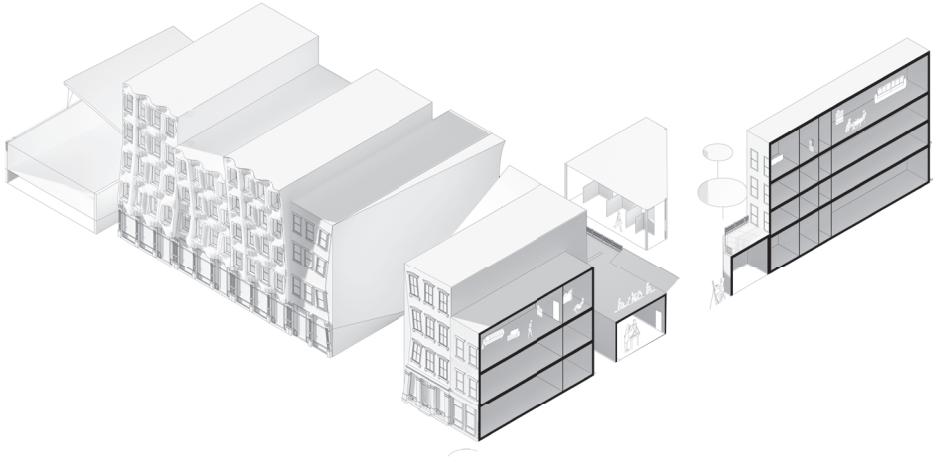
ART MUSEUM

ART VENUE


vine st
adjacent to the site lies vine st, a vibrant artistic and shopping district. vine st currently acts as the centerline dividing cincinnati into east and west, and has historically been a key cultural driver and method of connection across the city. in vine st's heyday, it was compared to broadway st in nyc as an important destination to visit.
FURTHER: ART GALLERIES VENUES ART COLLECTIVES DIY VENUES
ART MUSEUM
THEATRE
art
the site is surrounded by art, curated or homegrown. main st and vine st create an artistic streetface through galleries, stores, and theatres while pendleton arts center fosters creation through 8 floors of art studios. the site is situated at the midpoint of an interlaced network of creation and showcase throughout cincinnati, and functions of the site can further facilitate DIY art.
typology
common facades create representationally singular housing blocks, understood singularly by their irregular rhythm of backyards, opening to private alleyways. building upon the site will require maintaining elements of this typology to maintain the historical nature of OTR.
parking
the streetscape is dominated by street parking, while public/private lots facilitate easy access for further residents to access shopping, parks, eateries, and entertainment in the area. a large driver for parking by the site is Final Fridays, a high density event at pendleton arts center on the last friday of every month, where all the studios in the building are opened. the site has historically been a key parking spot for this event and populating the lot while still allowing parking for pendleton's events is important.
zoning
OTR zoning is dominated by connection to rowhome typology. building to, castero setback to the road, and building height, natives, rhythm, and storefronts are ruled through adjacency and historical context, with allowable features decided through relationship to nearby buildings. an important element of historical rhythm are the inlaid-tile storefronts, floor heights, and window rhythm.
arts buildings
parking
site
MUSIC HALL
ART SCHOOL
ARTS CENTER
DANCE CLUB
VINE ST
MAIN ST
MUSEUM HOTEL
Site Map
Scale: 1'=2500'

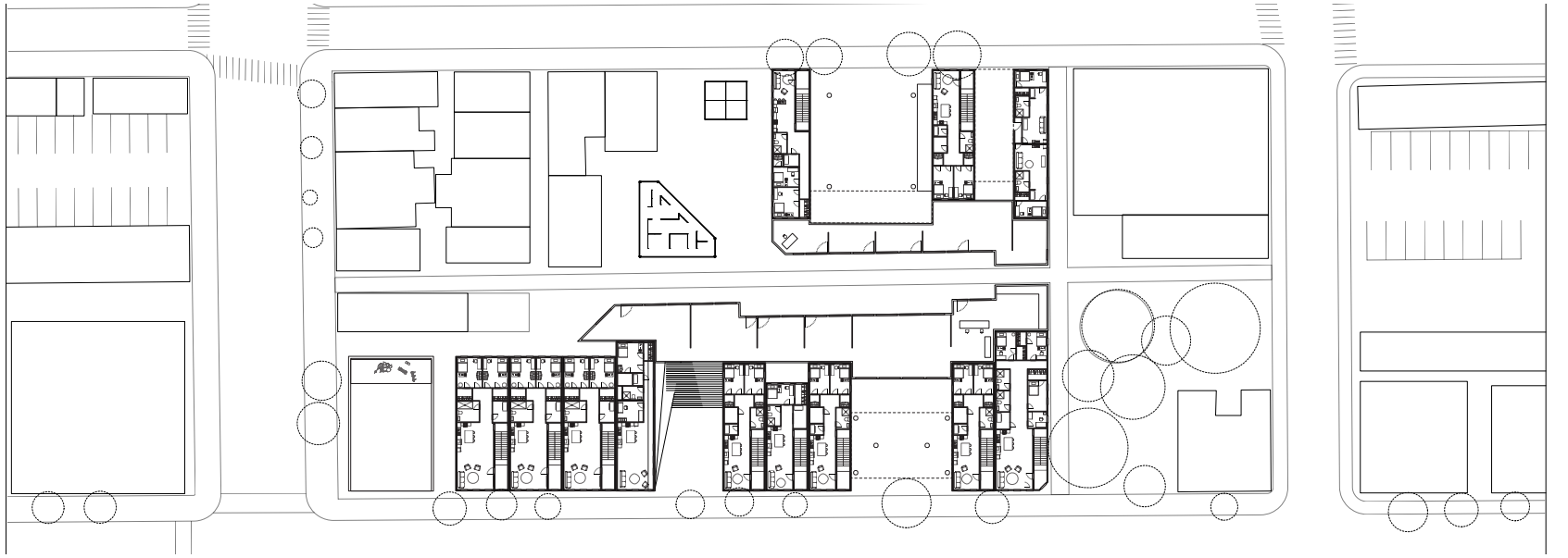
Site Exploration

understanding art and place

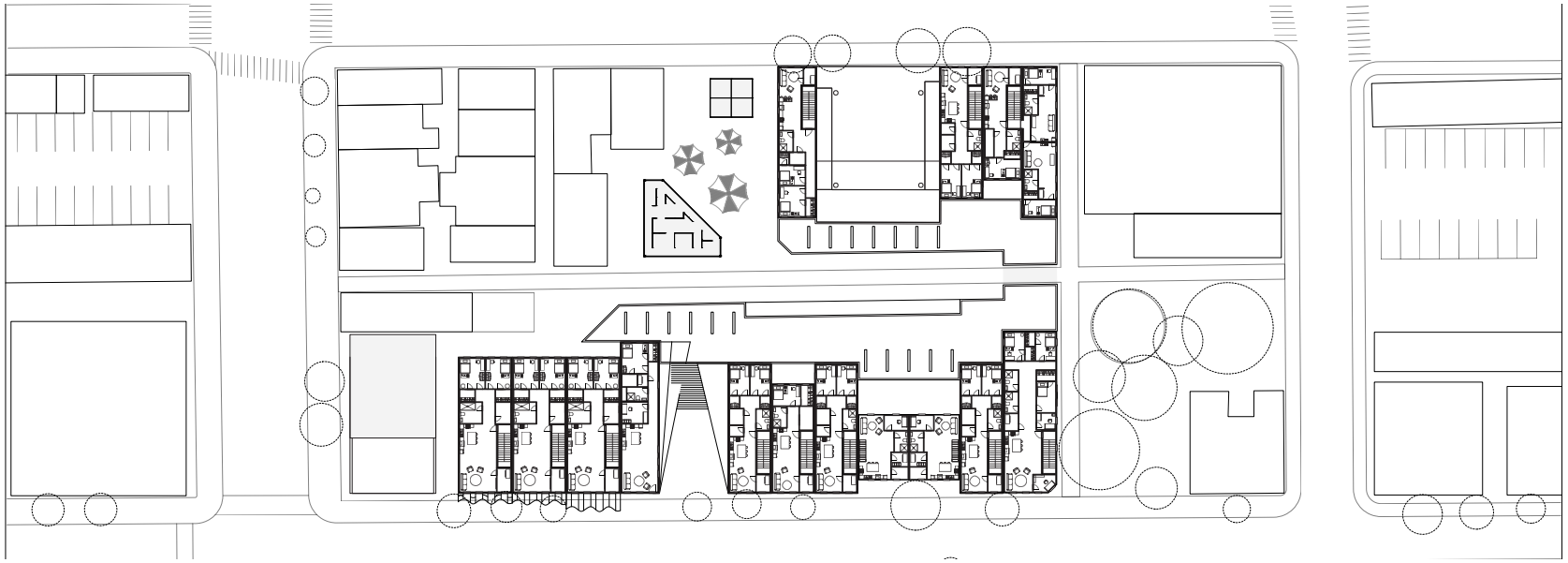


creation and presentation

Each housing element exists as a standalone rowhome, with open but logical floor plans. Each unit includes storage for creative hobbies, and a sense of ownership over space. Housing is accessible via the street, while the central alleyway is activated as a public “art alley”, flanked by studios within the irregular rhythm of rowhomes. The north courtyard, in the existing context surrounded by murals, houses open cafes and galleries for the unit’s work. The southwest corner of the site, most easily accessible through public transit, includes a live venue space for local, diy musical acts. The roof of the studios becomes an accessible terrace, and street level entrances bring residents to amenities among the studios.



upper floors plan

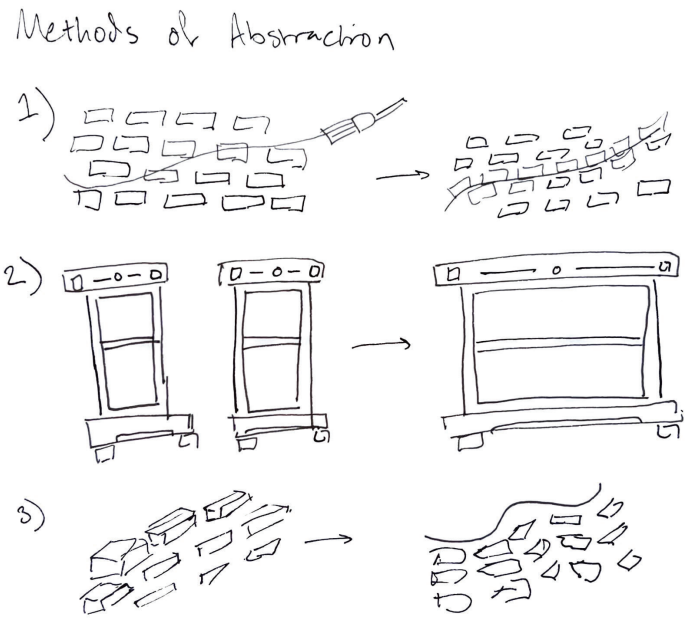


base floor plan

1 brick bond abstraction: “brushing” brick to create dynamism in the y-axis

2 typological facade abstraction: combining traditional blocks, keeping grid while increasing light

3 extrusion abstraction: modulating in the z-axis, creating a rippled brick facade



methods of abstraction

Over the Rhine is a protected historical region of Cincinnati, and is indued within the historical character of Italianite architecture, and the rowhome typology. The facade of the housing units seeks to abstract that rowhome form, applying 2D art principles onto architectural form. This is done through facade context, as well as methods of brickwork variation.

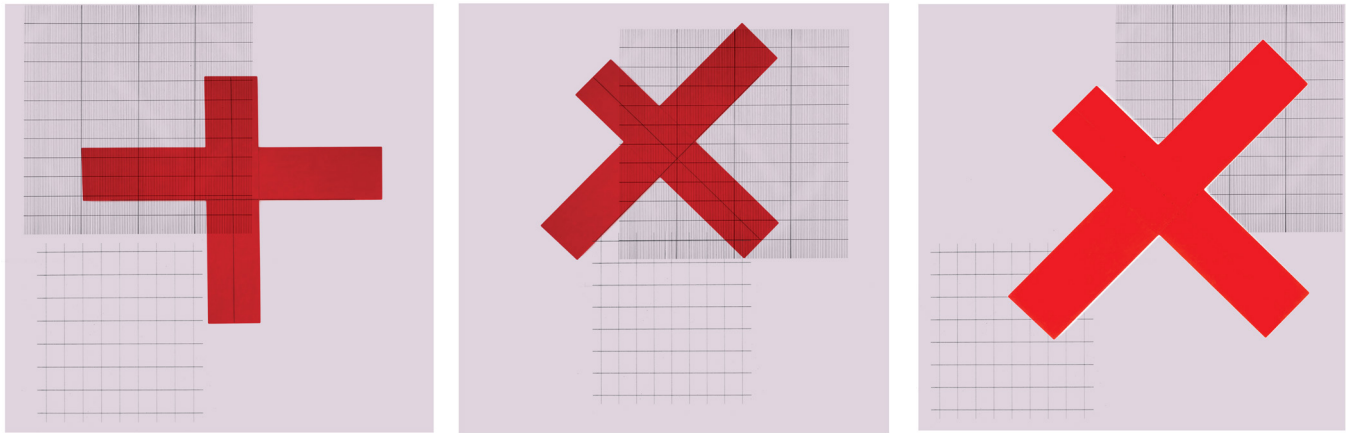
abstraction method 2 : typological facade abstraction

abstraction method 3 : extrusion abstraction

abstraction method 1 : brick bond abstraction

extraction

generative collage of Agnes and Martin

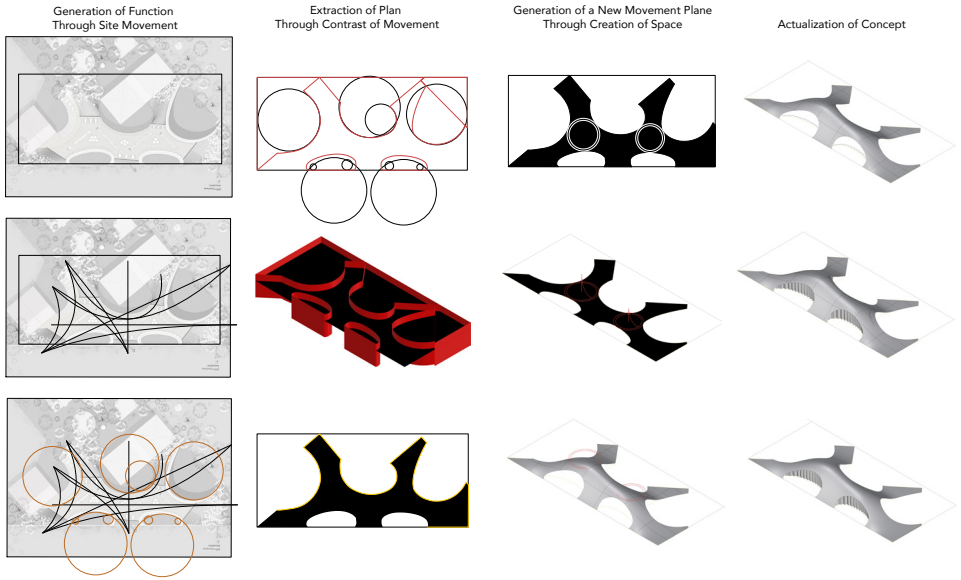


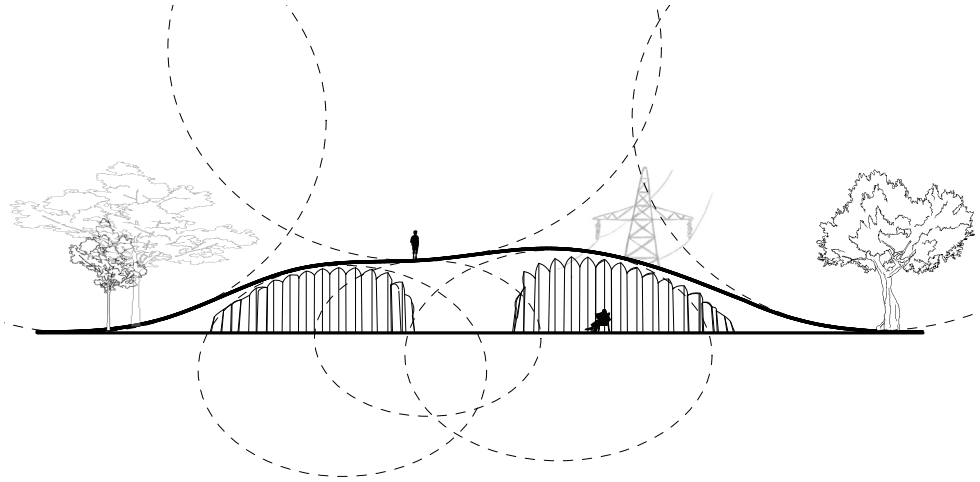
generated collage studies of the interactions between precedent, frame, and screen

physical model of generated collage

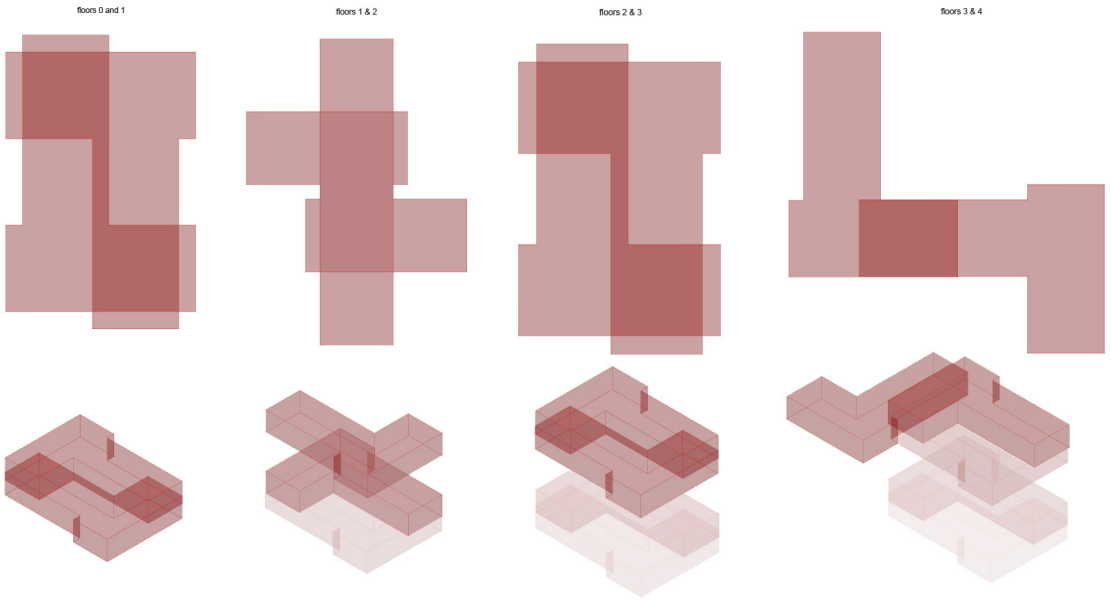
analysis of Maya Somaiya library

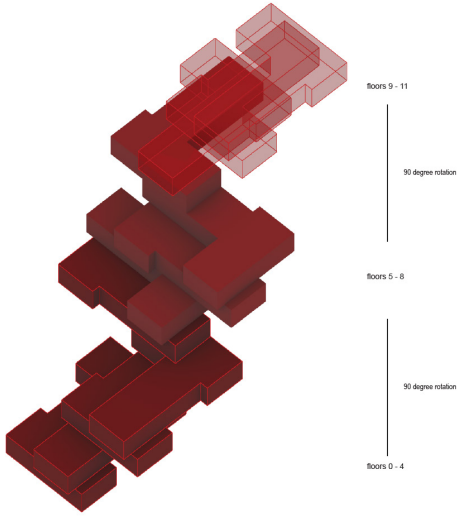
existing: maya somaiya library

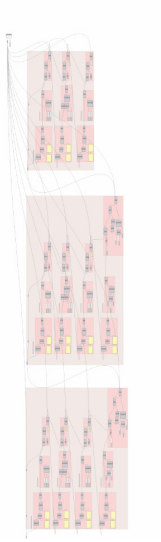




computational analysis of Habitat 67







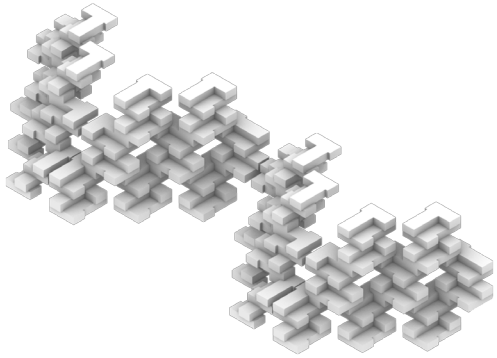
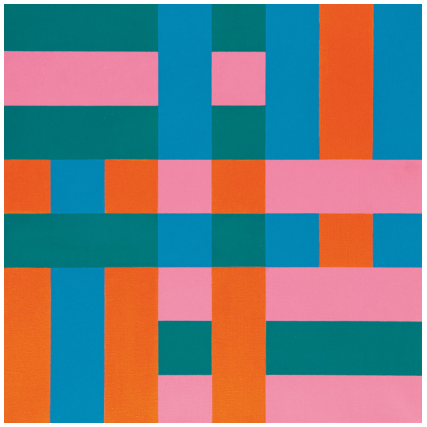
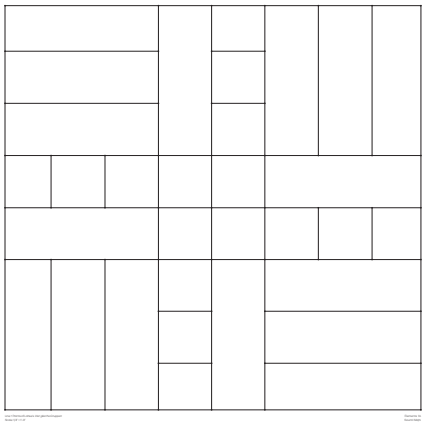


figure-ground analysis of Lohse



precedent by Lohse



point + line analysis

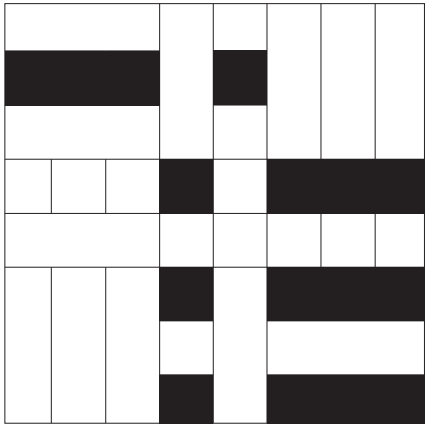


figure-ground of pink

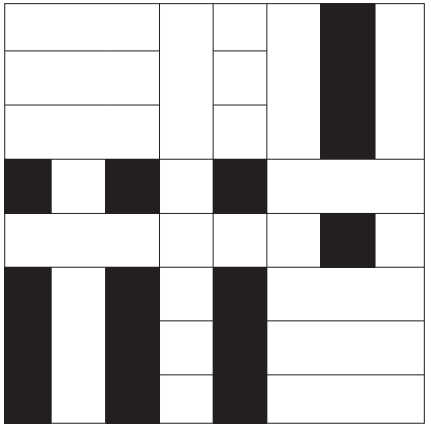


figure-ground of orange

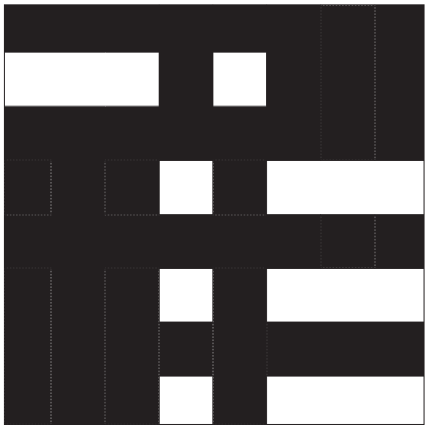
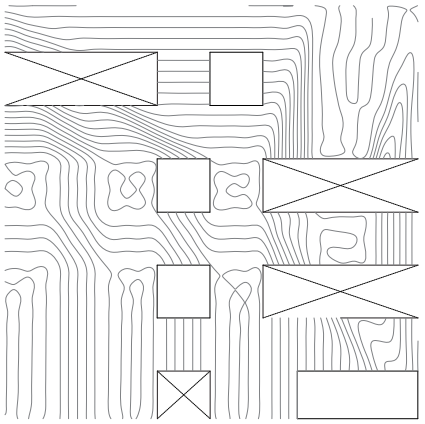
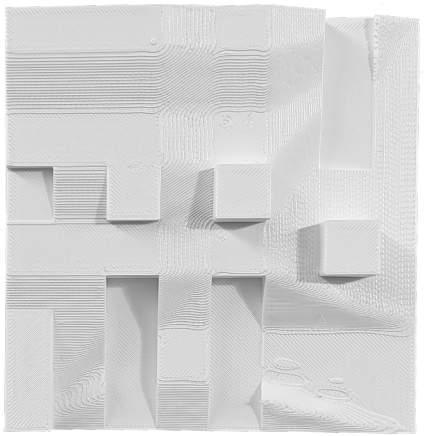


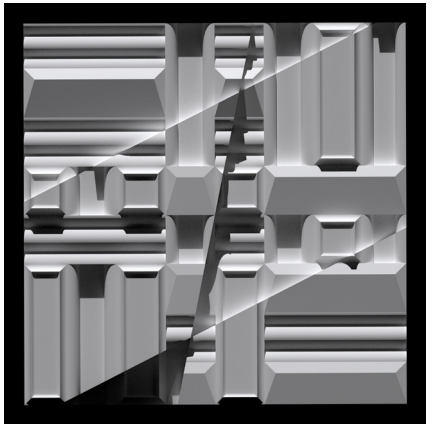
figure-ground abstraction



topographic abstraction of pink

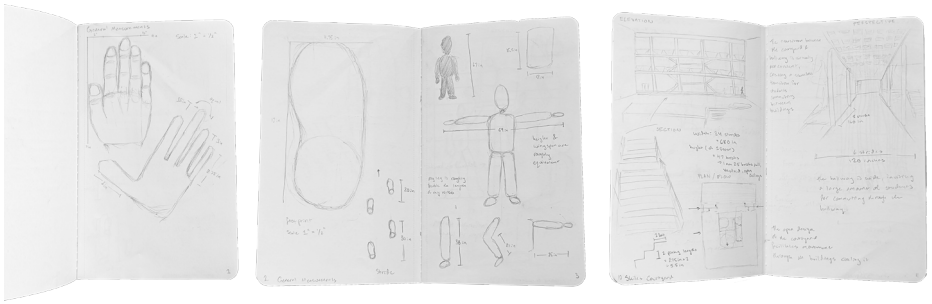


3D model

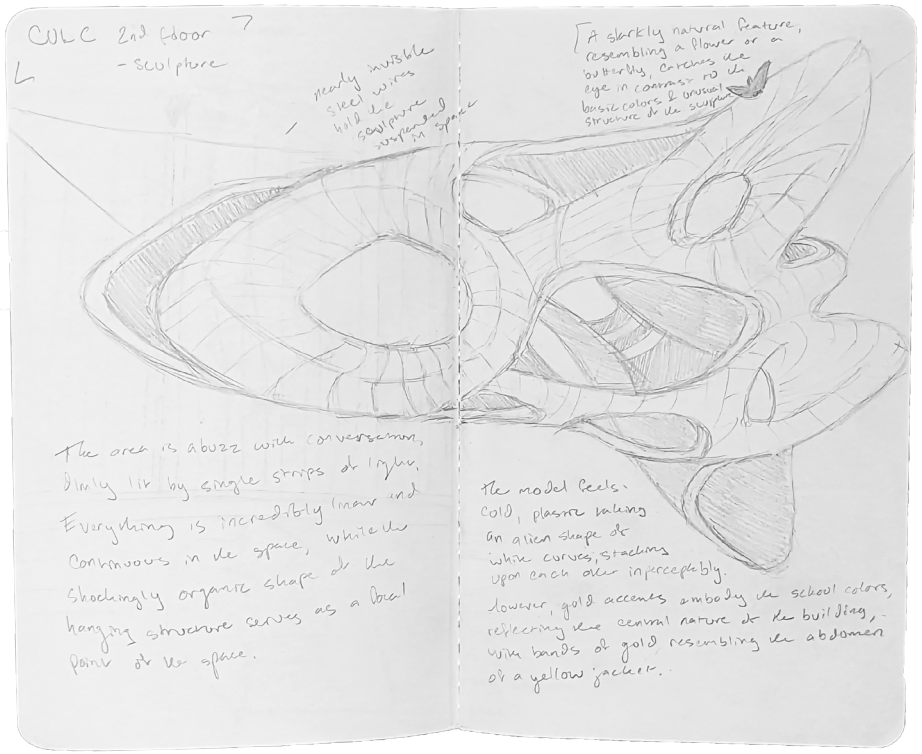


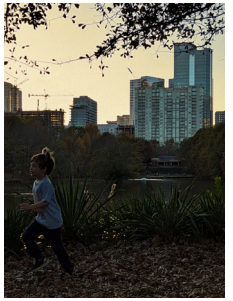
inhabitable relief surface of whole form

body modular + use of spaces



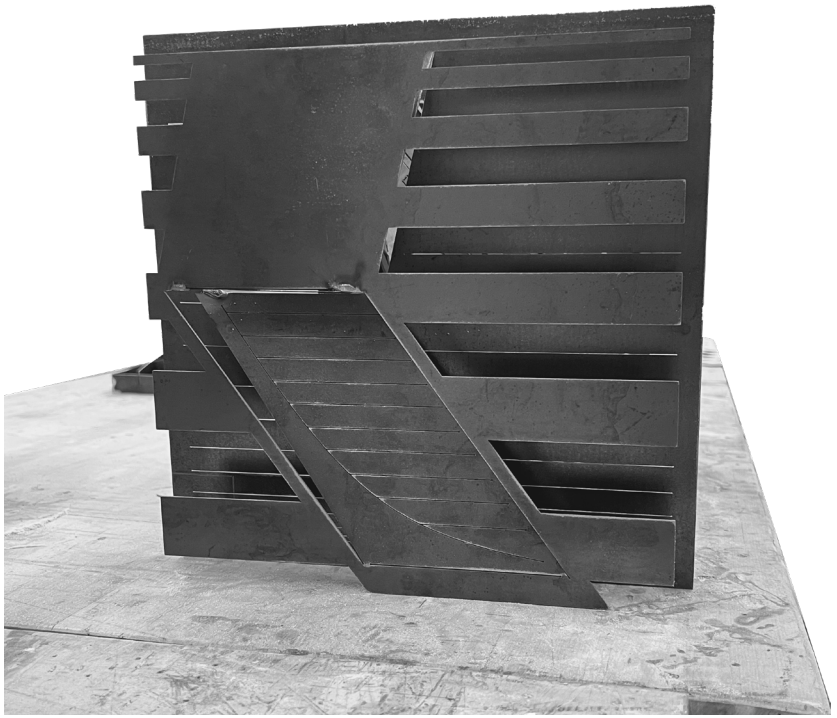
I initially explored architectural principles in the context of Atlanta through the body modular, as well as observation and creation. Through measuring parts of my body, I created a system for exploration of the guiding principles behind spaces, and how this can function into my own work.

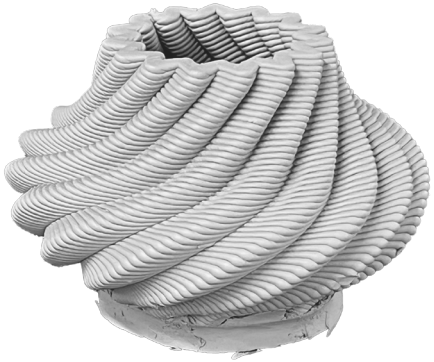

CULC 2nd floor
- sculpture
nearly invisible steel wires hold the sculpture suspended in space
A starkly natural feature, resembling a flower or a butterfly, caresses the eye in contrast to its basic colors & unusual structure of the sculpture
The area is abuzz with conversation, dimly lit by single strips of light. Everything is incredibly linear and continuous in the space, while the shockingly organic shape of the hanging structure serves as a focal point of the space.
The model feels cold, plastic taking an alien shape of white curves, stacking upon each other imperceptibly. However, gold accents embody the school colors, reflecting the central nature of the building, with bands of gold resembling the abdomen of a yellow jacket.

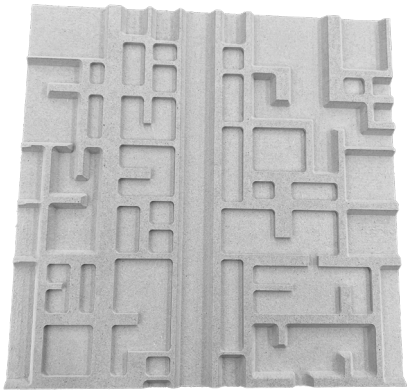


additional works

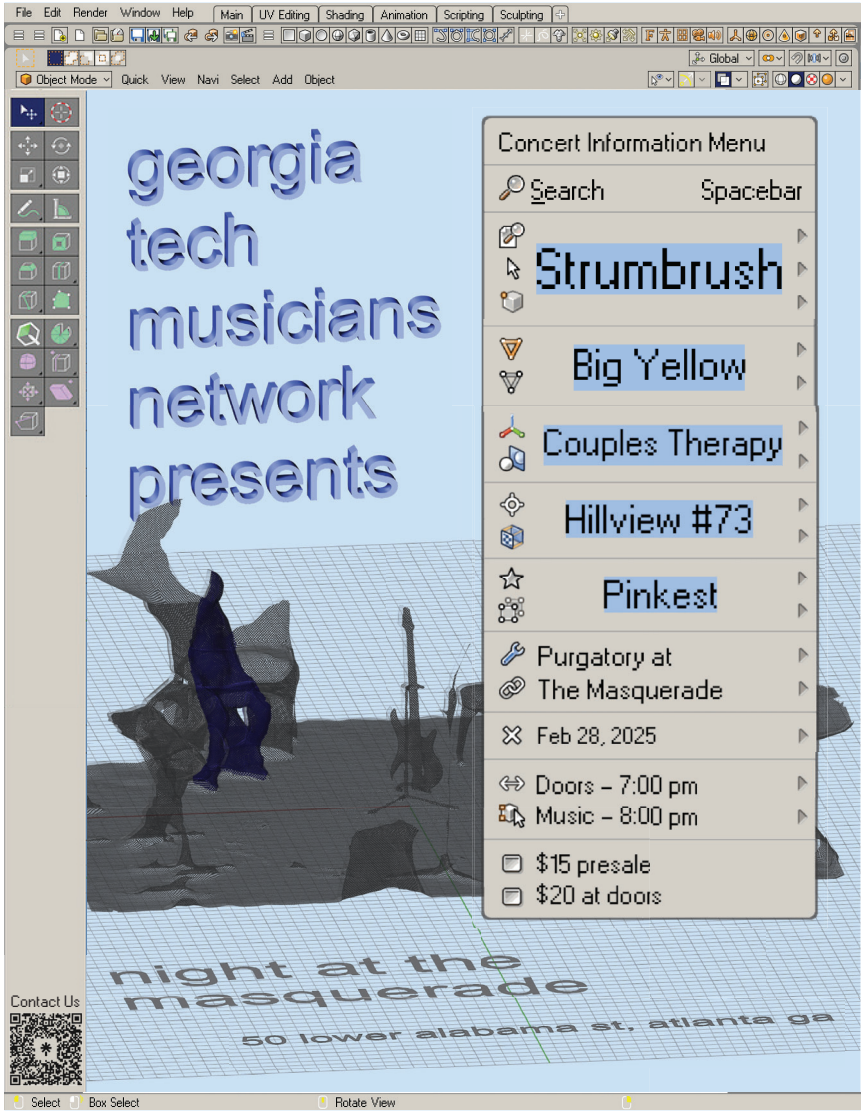
assorted physical process work





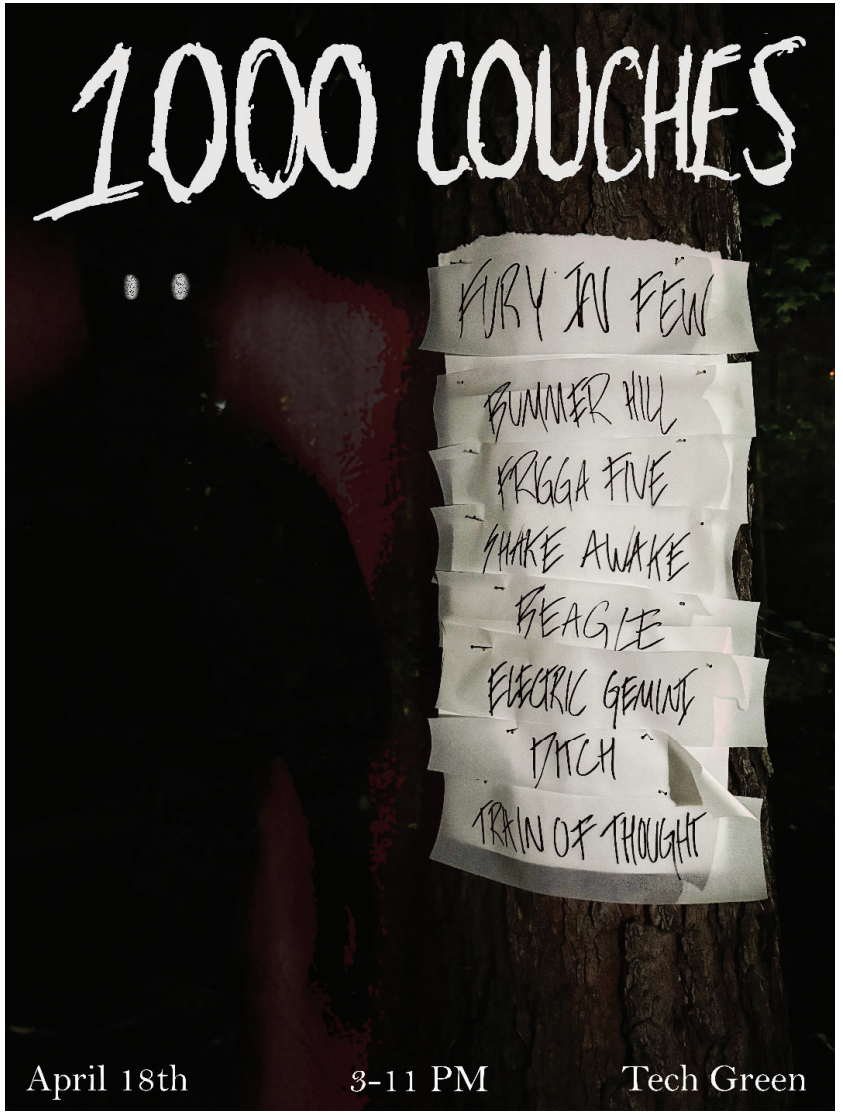


graphic design



GEORGIA TECH'S BIGGEST MUSIC FESTIVAL OF ALL TIME
COUCHELLA
FRIDAY, SEPT 20 - TECH GREEN - 2 TO 10 PM
MICHAEL CERA PALIN
BUMMER HILL TUNNELS
/HOSPITALITY/ SMOKE DETECTOR
HAGAN COUPLES THERAPY DOGFIGHT
MEMORY ORCHARD MUTUAL DISJUNCTION
+ FREE ENTRY + OPEN TO THE PUBLIC + FOOD AND MERCH VENDORS
PRESENTED BY THE GT MUSICIANS NETWORK

graphic design



thanks for stopping by!

by soumil majhi

2026